

	Field	Acres	Buffer	Net Ac.	Latitude	Long.	FSN#	Tract	Field	Tax ID #	RPC#
Sammy Ferguson	RO86-1	18.1	3.6	14.5	37.301	-79.560	3259	947	6	146 8 6 146 8 7	14605904 14605905
	RO86-2	32.6	15.1	17.5	37.299	-79.566	3259 219	924 932	1-3 7	145 A 50 145 A 54	14505100 90506351
	RO86-3	39.4	14.2	25.2	37.297	-79.568	219	932	1-4, 6	145 A 50	14505100
										145 A 51	14505200
										145 A 51A	90506354
										145 A 51B	90506355
										145 A 51C	90506356
										145 A 52	14505300
										145 A 53	90506352
										145 A 53A	90506353
	RO86-4	75.0	25.4	49.6	37.297	-79.562	219	932	9-10, 12, 1	145 A 40	14504200
	RO86-5	145.9	73.3	72.6	37.295	-79.552	3802	6530	1	146 A 57	14606100
										164 A 71D	90503413
										164 A 71E	90503414
	RO86-6	15.5	4.2	11.3	37.292	-79.568	3619	925	17	145 A 40	14504200
										145 A 37	NA
	RO86-7	48.7	25.7	23.0	37.292	-79.565	3619	925	42434	145 A 40	14504200
	RO86-8	7.1	1.5	5.6	37.290	-79.567	3619	925	2	145 A 40	14504200
	RO86-9	98.3	51.8	46.5	37.291	-79.562	3619	925	3, 5-6	145 A 40	14504200
	RO86-10	29.3	15.2	14.1	37.283	-79.561	267	967	2-Jan	164 1 14	90510875
	RO86-11	70.1	45.3	24.8	37.283	-79.564	267	967	2-6, 8, 10	164 A 1	16400000
	RO86-12	8.9	0.0	8.9	37.282	-79.561	251	958	7	164 A 1	16400000
	RO86-13	8.1	3.0	5.1	37.280	-79.566	251	958	1	164 A 1	16400000
	RO86-14	7.0	0.0	7.0	37.279	-79.557	285	977	1	164 A 2	16400100
	RO86-15	34.2	30.6	3.6	37.278	-79.557	285	977	1-2	164 A 2	16400100
	TOTALS	638.2		329.3							

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 12/20/2015 between James R. Ferguson referred to here as "Landowner", and Bio-Nomic Service, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Bedford City, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
146 8 6	145 A 51 A	145 A 53 A	
146 8 7	145 A 51 B	164 1 14	
145 A 50	145 A 51 C		
145 A 54	145 A 52		
145 A 51	145 A 53		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
☒ Yes ☐ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No

James R. Ferguson owner [Signature] 3915 March Rd Bedford
Landowner - Printed Name, Title Signature Mailing Address
VA 24523

Permittee:

Bio-Nomic Service, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Walter Buck Stevenson [Signature] 576 Roundtree Rd
Permittee - Authorized Representative Signature Mailing Address
Printed Name Charlotte, NC 28217

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomic Services
Landowner: James R. Ferguson

County or City: Bedford County

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).



James R. Ferguson
Landowner's Signature

12-20-15
Date

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

The Landowner is the owner of record of the real property located in Bedford City, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Page 1 of 2

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomic Services
Landowner: Faye A. Ferguson

County or City: Bedford County

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

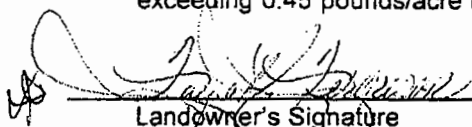
I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil.
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).


Landowner's Signature

December 20, 2015
Date

[Search](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#)[Log On](#)[Printer-Friendly](#)[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
146 8 6	146 8 6	14605904	

[Link to Real Estate Lookup/Sketch](#)[Parcel Information](#)[Valuation](#)[Improvements](#)[Ownership History](#)**General Information**

Owner:	FERGUSON JAMES R & FAYE A	Legal Acreage:	10.6100
Additional Owner:		PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	3915 MONETA RD BEDFORD , VA 24523	Legal Description:	TRACT 6
		Document Number:	100002161

Land Use

Tax Year: 1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-1

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 12086-1



122

Feet

0 500 1000 1500 2000
1:18,056 / 1"=1 505 Feet

Title: Ferguson, James and Faye 146 8 6 14605904



Date: 3/15/2016

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Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View in Map](#) 

Tax Map #

Link

Parcel Number(RPC).

Address

146 8 7

146 8 7

14605905

[Link to Real Estate Lookup/Sketch](#)

Parcel Information

Valuation

Improvements

Ownership History

General Information

Owner: FERGUSON JAMES R & FAYE A

Legal Acreage: 19.1400

Additional Owner:

PCDesc: 2 Single Family Res(1-19.99ac)

Owner Address:

3915 MONETA RD
BEDFORD, VA 24523

Legal Description:

TRACT 7

Document Number:

100002161

Land Use

Tax Year: 1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-1

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART R086-1



Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

Title: Ferguson, James and Faye 146 8 7 14605905

Date: 3/15/2016

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[Search](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View in Map](#)**Tax Map #**

145 A 50

Link

145 A 50

Parcel Number(RPC)

14505100

Address

3420 DICKERSON MILL ROAD

[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON JAMES R & FAYE A

Additional Owner:**Owner Address:**3915 MONETA RD
BEDFORD, VA 24523**Legal Acreage:**

61.7200

PCDesc:

5 Agricultural/Undevl(20-99ac)

Legal Description:

HERITAGE HILLS LT 8 PB 45/20

Document Number:

120008132

Land Use**Tax Year: 1997**

1998

1999

2000

2001

2002

2003

2004

2005

2009

2010

2011

2012

2013

2014

2015

2016

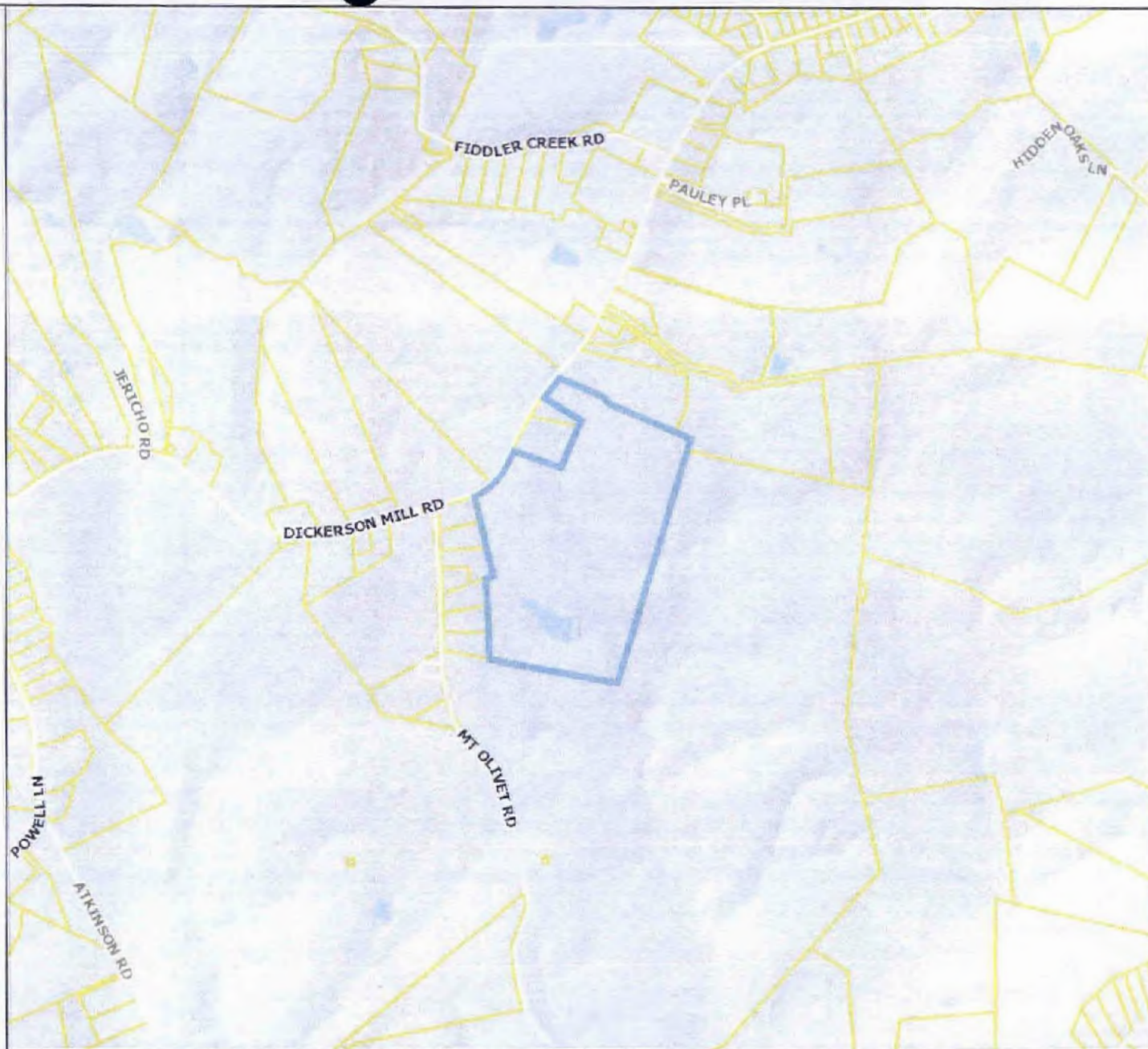
Posle-2
PART Posle-3

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

RO86-2
PART RO86-3



Title: Ferguson, James and Faye 145 A 50 14505100

Date: 3/15/2016



Feet
0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

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Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View In Map](#) 

Tax Map #

145 A 54

Link

145 A 54

Parcel Number(RPC).

90506351

Address

[Link to Real Estate Lookup/Sketch](#)

Parcel Information

Valuation

Improvements

Ownership History

General Information

Owner:

FERGUSON JAMES R & FAYE A

Legal Acreage:

2.9400

Additional Owner:

PCDesc:

2 Single Family Res(1-19.99ac)

Owner Address:

3915 MONETA RD
BEDFORD, VA 24523

Legal Description:

HERITAGE HILLS LOT 7 PB 45/20

Document Number:

120008132

Land Use

Tax Year: 2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-2

Bedford, VA

Legend

E911 Address

Highway

Blue Ridge Parkway

US Primary

Virginia Primary
Roads

Driveway

Parcels - County

Parcels - Town

Public School Boundary

PART ROAD-2



Feet

0 100 200 300 400
1:4,514 / 1"=376 Feet

Title: Ferguson, James and Faye 145 A 54 90506351


Date: 3/15/2016

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Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View In Map](#) 

Tax Map #	Link	Parcel Number(RPC)	Address
145 A 51	145 A 51	14505200	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information

Valuation

Improvements

Ownership History

General Information

Owner:	FERGUSON JAMES R & FAYE A	Legal Acreage:	1.7800
Additional Owner:		PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	3915 MONETA RD BEDFORD , VA 24523	Legal Description:	HERITAGE HILLS LOT 4 PB 45/20
		Document Number:	120008132

Land Use

Tax Year: 1997

1998

1999

2000

2001

2002

2003

2004

2005

2009

2010

2011

2012

2013

2014

2015

2016

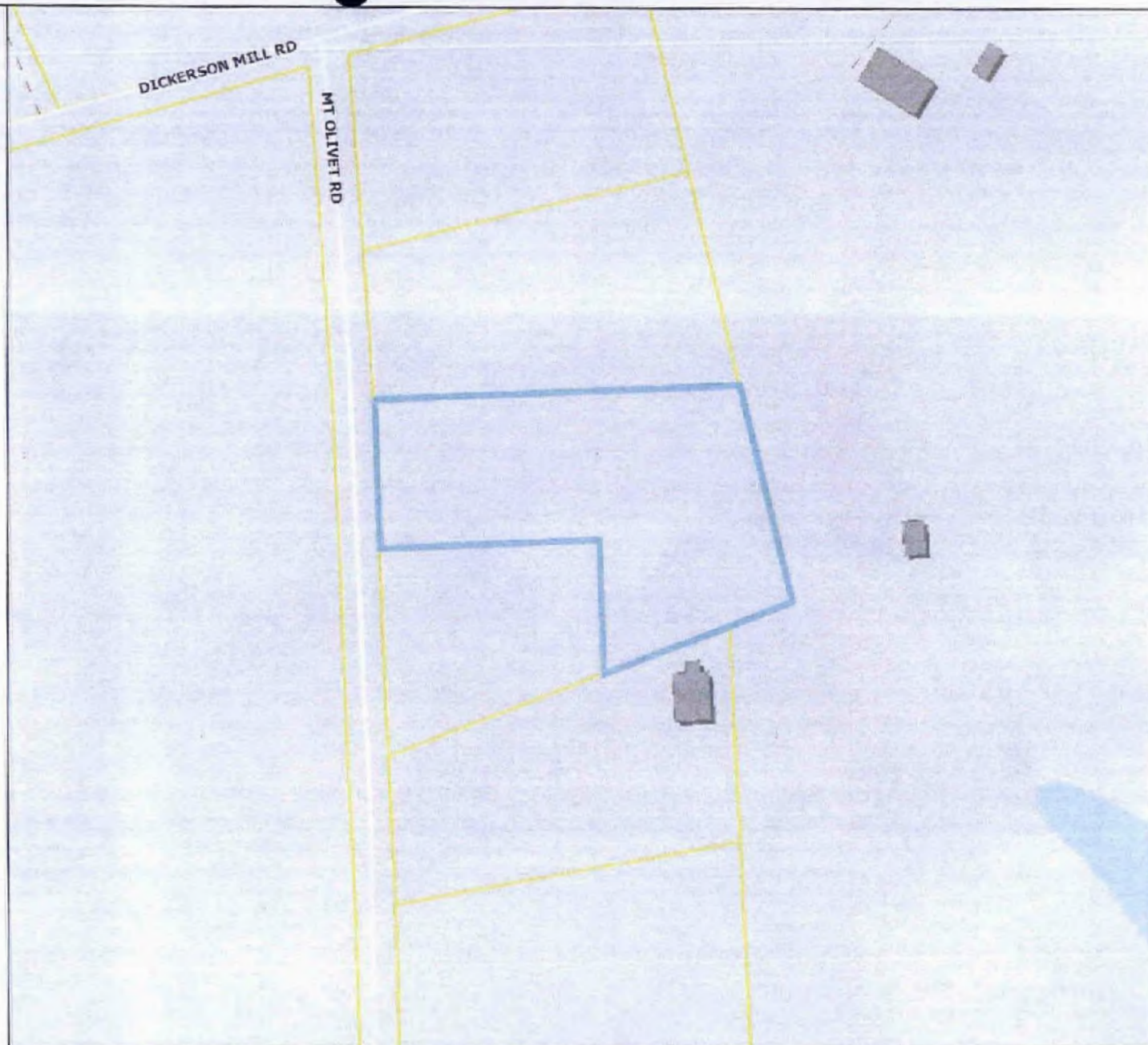
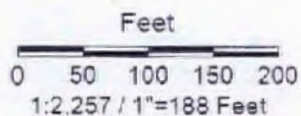
PART R086-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART ROSE-3



Title: Ferguson, James and Faye 145 A 51 14505200



Date: 3/15/2016

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Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View In Map](#) **Tax Map #**

145 A 51A

Link

145 A 51A

Parcel Number(RPC).

90506354

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information**

Valuation

Improvements

Ownership History

General Information**Owner:**

FERGUSON JAMES R & FAYE A

Legal Acreage:

1.5000

Additional Owner:**PCDesc:**

2 Single Family Res(1-19.99ac)

Owner Address:3915 MONETA RD
BEDFORD, VA 24523**Legal Description:**

HERITAGE HILLS LOT 3 PB 45/20

Document Number:

120008133

Land Use**Tax Year: 2009**

2010

2011

2012

2013

2014

2015

2016

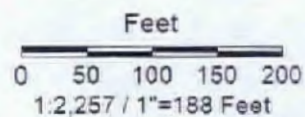
PART 12086-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 2086-3



Title: Ferguson, James and Faye 145 A 51A 90506354



Date: 3/15/2016

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Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View In Map](#) 

Tax Map #	Link	Parcel Number(RPC)	Address
145 A 51B	145 A 51B	90506355	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information

Valuation

Improvements

Ownership History

General Information

Owner:	FERGUSON JAMES R & FAYE A	Legal Acreage:	1.5000
Additional Owner:		PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	3915 MONETA RD BEDFORD , VA 24523	Legal Description:	HERITAGE HILLS LOT 2 PB 45/20
		Document Number:	120008132

Land Use

Tax Year: 2009
2010
2011
2012
2013
2014
2015
2016

PART R086-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART R086-3



Feet
0 50 100 150 200
1:2,257 / 1"=188 Feet

Title: Ferguson, James and Faye 145 A 51B 90506355

Date: 3/15/2016

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[Search](#)[Results](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#)[Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

145 A 51C

Link

145 A 51C

Parcel Number(RPC)

90506356

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON JAMES R & FAYE A

Additional Owner:**Owner Address:**3915 MONETA RD
BEDFORD, VA 24523**Legal Acreage:**

1.5000

PCDesc:

2 Single Family Res(1-19.99ac)

Legal Description:

HERITAGE HILLS LOT 1-PB 45/20

Document Number:

120008132

Land Use**Tax Year: 2009**

2010

2011

2012

2013

2014

2015

2016

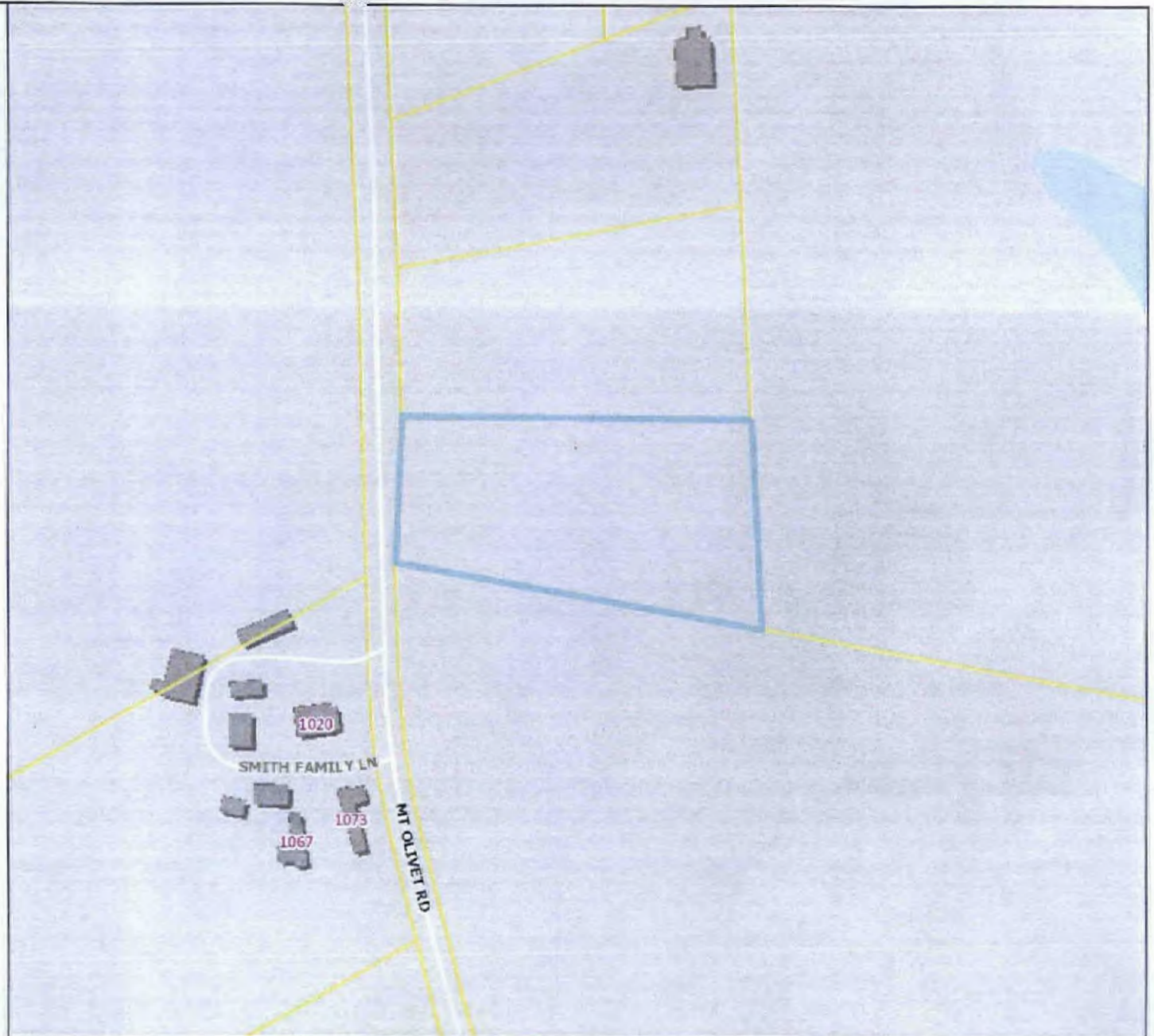
PART POSU-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART K086-3





Feet

0 50 100 150 200
1:2,257 / 1"=188 Feet

Title: Ferguson, James and Faye 145 A 51C 90506356

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Search Results **Details** Map[Contact](#) | [GIS Page](#) [Log On](#) [Printer-Friendly](#)[View In Map](#) 

Tax Map #	Link	Parcel Number(RPC)	Address
145 A 52	145 A 52	14505300	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History**General Information**

Owner:	FERGUSON JAMES R & FAYE A	Legal Acreage:	1.0000
Additional Owner:		PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	3915 MONETA RD BEDFORD , VA 24523	Legal Description:	DICKERSON MILL RD
		Document Number:	040001858

Land Use

Tax Year: 2012
2013
2014
2015
2016

PART 1086-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART R086-3

Feet

0 50 100 150 200
1:2,257 / 1"=188 Feet



Title: Ferguson, James and Faye 145 A 52 14505300

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Search](#)[Results](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

145 A 53

Link

145 A 53

Parcel Number(RPC).

90506352

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON JAMES R & FAYE A

Legal Acreage:

1.5000

Additional Owner:**PCDesc:**

2 Single Family Res(1-19.99ac)

Owner Address:3915 MONETA RD
BEDFORD, VA 24523**Legal Description:**

HERITAGE HILLS LOT 6 PB 45/20

Document Number:

120008132

Land Use**Tax Year:** 2009

2010

2011

2012

2013

2014

2015

2016

PART RO86-3

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 2086-3



Feet
0 50 100 150 200
1:2,257 / 1"=188 Feet

Title: Ferguson, James and Faye 145 A 53 90506352

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Search](#)[Results](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

145 A 53A

Link

145 A 53A

Parcel Number(RPC)

90506353

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON JAMES R & FAYE A

Legal Acreage:

1.5000

Additional Owner:**PCDesc:**

2 Single Family Res(1-19.99ac)

Owner Address:3915 MONETA RD
BEDFORD, VA 24523**Legal Description:**

HERITAGE HILLS LOT 5 PB 45/20

Document Number:

120008132

Land Use**Tax Year:** 2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-3

Bedford, VA

Legend

E911 Address

Highway

Blue Ridge Parkway

US Primary

Virginia Primary
Roads

Driveway

Parcels - County

Parcels - Town

Public School Boundary

PART KOSLE 3

Feet



0 50 100 150 200
1:2,257 / 1"=188 Feet



Title: Ferguson, James and Faye 145 A 53A 90506353

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Search](#)[Results](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) [Log On](#) [Printer-Friendly](#)[View In Map](#) **Tax Map #****Link****Parcel Number(RPC).****Address**

164 1 14

164 1 14

16409700

[Link to Real Estate Lookup/Sketch](#)[Parcel Information](#)[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON JAMES R & FAYE A

Legal Acreage:

28.7500

Additional Owner:**PCDesc:**

5 Agricultural/Undeveloped(20-99ac)

Owner Address:3915 MONETA RD
BEDFORD, VA 24523**Legal Description:**

BUNKER HILL PT LT 14

Document Number:

100008486

Land Use**Tax Year:** 1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

R086-10

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PO 86-10



Title: Ferguson, James and Faye 164 1 14 16409700

Date: 7/21/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Feet

0 200 400 600 800
1:9,028 / 1"=752 Feet

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 12/20/15 between Ferguson Farms, LLC referred to here as "Landowner", and Bio-Nomic Services, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Berkeley County Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
145 A 40	145 04200		
146 A 57	146 06100		
164 A 1	164 00000		
164 A 71D	90503413		
164 A 71E	90503414		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
☒ Yes ☐ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No

Ferguson Farms, LLC

James R. Ferguson Owner
Landowner - Printed Name, Title

Signature

Mailing Address

3715 Municipal Bedford
VA 24523

Permittee:

Bio-Nomic Services, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Vaughn "Buck" Stevenson
Permittee - Authorized Representative
Printed Name

Signature

Mailing Address

516 Rowntree Rd
Charlotte, NC 28217

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomic Services
Landowner: Ferguson Farms, LLC
James Ferguson

County or City: Bedford County

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Ferguson Farms, LLC

Landowner's Signature

Date

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 12/20/15 between Ferguson Farms, LLC referred to here as "Landowner", and Blount Services, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Bedford County Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
145 A 40	145 04200		
146 A 57	146 06100		
164 A 1	164 00000		
164 A 71D	90503413		
164 A 71E	90503414		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Ferguson Farms, LLC
Sammy C. Ferguson 6042
 Landowner - Printed Name, Title Signature Mailing Address 1139 Jerro Mill Rd
va 24523

Permittee:

Blount Services, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Vaughn "Buck" Stevenson Donald H. Brown for U.S. 516 Rowatree Rd
 Permittee - Authorized Representative Signature Mailing Address
Printed Name Charlotte, NC 28217

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomix Services
Landowner: Ferguson Farms, LLC
Sammy Ferguson

County or City: Bedford County

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil.
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days.
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Ferguson Farms, LLC
Sammy Ferguson (owner)
Landowner's Signature

12-20-15
Date

[Search](#)[Results](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

145 A 40

Link

145 A 40

Parcel Number(RPC).

14504200

Address[Link to Real Estate Lookup/Sketch](#)[Parcel Information](#)[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON FARMS LLC

Legal Acreage:

256.3600

Additional Owner:**PCDesc:**

6 Agricultural/Undeveloped(100+ac)

Owner Address:3915 MONETA ROAD
BEDFORD, VA 24523**Legal Description:**

NR BUNKER HILL

Document Number:

030004841

Land Use**Tax Year:** 1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

Ro 86-4

Ro 86-6

Ro 86-7

Ro 86-8

Ro 86-9

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

Ro 86-4
Ro 86-6
Ro 86-7
Ro 86-8
Ro 86-9



Title: Ferguson Farms LLC 145 A 40 14504200

Date: 3/30/2016

Feet
0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Search](#)[Property](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

146 A 57

Link

146 A 57

Parcel Number(RPC)

14606100

Address

2933 MONETA RD

[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

FERGUSON FARMS LLC

Legal Acreage:

140.9300

Additional Owner:**PCDesc:**

5 Agricultural/Undeveloped(20-99ac)

Owner Address:3915 MONETA ROAD
BEDFORD, VA 24523**Legal Description:**

TRACT 5

Document Number:

000009242

Land Use**Tax Year: 1997**

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-5

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART
R086-5



Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

Title: Ferguson Farms LLC 145 A 57 14606100


Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Search

Details

Map

[Contact](#) | [GIS Page](#) | [Log On](#) [Printer-Friendly](#)[View In Map](#) **Tax Map #**

164 A 71D

Link

164 A 71D

Parcel Number(RPC)

90503413

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information**

Valuation

Improvements

Ownership History

General Information**Owner:**

FERGUSON FARMS LLC

Additional Owner:**Owner Address:**3915 MONETA ROAD
BEDFORD, VA 24523**Legal Acreage:**

2.8600

PCDesc:

2 Single Family Res(1-19.99ac)

Legal Description:

TRACT 5A

Document Number:

000009242

Land Use**Tax Year:** 2001

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

PART 2086-5

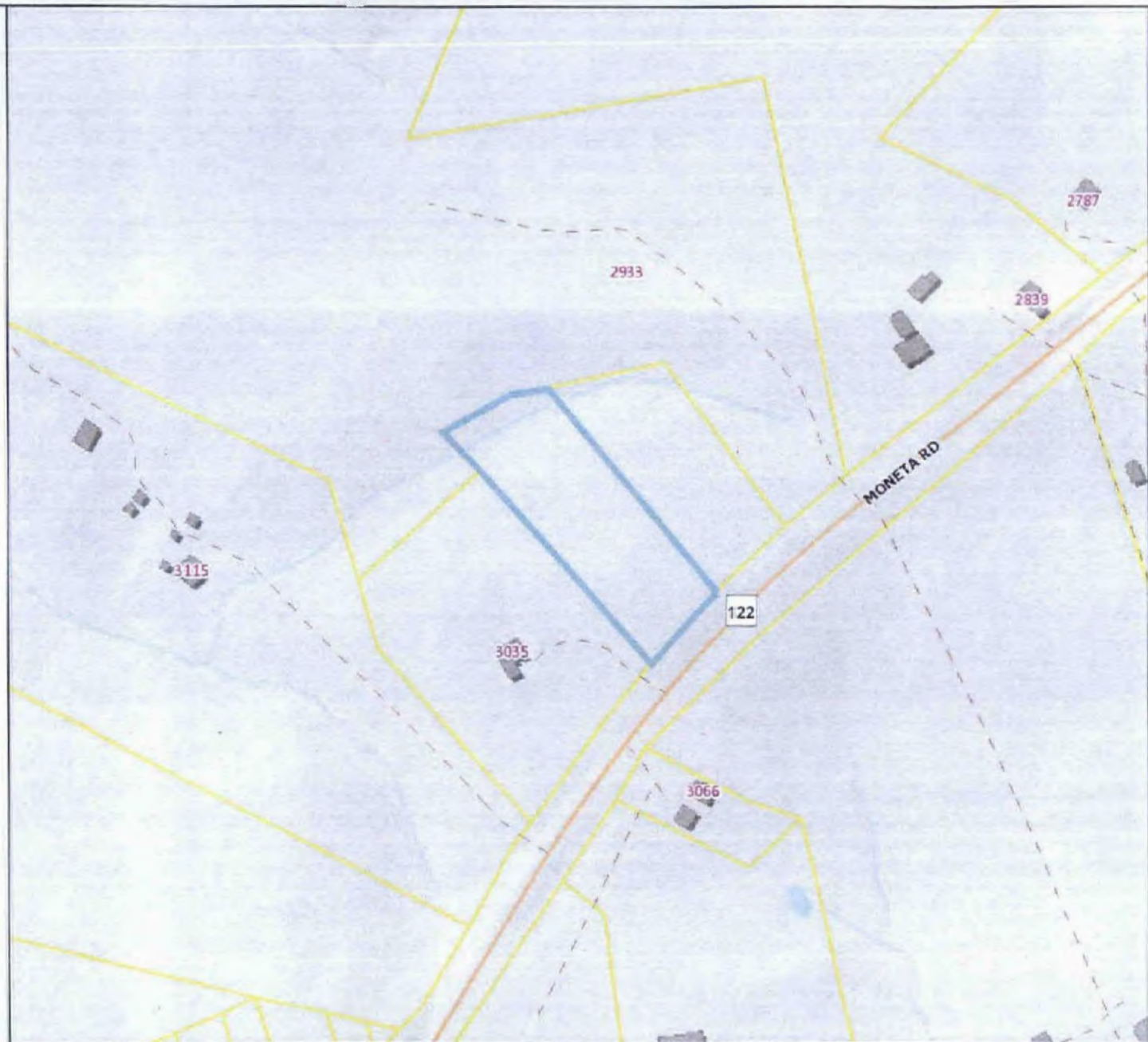
Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 2086-5

Feet
0 100 200 300 400
1:4,514 / 1"=376 Feet



Title: Ferguson Farms LLC 164 A 71D 90503413

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Search](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View in Map](#)**Tax Map #**

164 A 71E

Link

164 A 71E

Parcel Number(RPC).

90503414

Address[Link to Real Estate Lookup/Sketch](#)**Parcel Information****Valuation****Improvements****Ownership History****General Information****Owner:**

FERGUSON FARMS LLC

Legal Acreage:

2.2800

Additional Owner:**PCDesc:**

2 Single Family Res(1-19.99ac)

Owner Address:3915 MONETA ROAD
BEDFORD, VA 24523**Legal Description:**

TRACT 5B

Document Number:

000009242

Land Use**Tax Year:**

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

PART 1086-5

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 2086-5





Feet
0 100 200 300 400
1:4,514 / 1"=376 Feet

Title: Ferguson Farms LLC 164 A 71E 90503414

Date: 3/15/2016

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Search Results **Details** Map[Contact](#) | [GIS Page](#) [Log On](#) [Printer-Friendly](#)[View in Map](#) 

Tax Map #	Link	Parcel Number(RPC)	Address
164 A 1	164 A 1	16400000	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History**General Information**

Owner:	FERGUSON FARMS LLC	Legal Acreage:	118.1400
Additional Owner:		PCDesc:	6 Agricultural/Undevl(100+ac)
Owner Address:	3915 MONETA ROAD BEDFORD, VA 24523	Legal Description:	NR MT OLIVET CH
		Document Number:	030004841

Land Use**Tax Year:** 1997

1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

R086-11
R086-12
R086-13

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

Rosie-11
Rosie-12
Rosie-13



Title: Ferguson Farms LLC 164 A 1 1640000

Date: 3/15/2016

Feet
0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 12/20/15 between JFS Farms, LLC referred to here as "Landowner", and Bio-Nomix Services, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Berkeley County Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
<u>164 A 2</u>	<u>164 00100</u>		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
☒ Yes ☐ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No

JFS Farms, LLC
James R. Ferguson Owner [Signature] 3715 Monmouth Rd Bedford
Landowner - Printed Name, Title Signature Mailing Address
VA 24523

Permittee:

Bio-Nomix Services, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Vaughn Buck Stevenson [Signature] 516 Roundtree Rd
Permittee - Authorized Representative Signature Mailing Address
Printed Name Charlotte NC 28217

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomic Services
Landowner: JES Farms, LLC
James Ferguson

County or City: Bedford County

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil.
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

JES Farms, LLC

James Ferguson
Landowner's Signature

12-20-15
Date

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 12/20/15 between JFS Farms, LLC referred to here as "Landowner", and Bio-Nomic Services, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Bedford County, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
<u>164 A 2</u>	<u>164 00100</u>		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

JFS Farms, LLC

* Sammy C. Ferguson
Landowner - Printed Name, Title

Sammy C. Ferguson
Signature

1139 Joppa Mill Rd
Mailing Address VA 24523

Permittee:

Bio-Nomic Services, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Vaughn Buck Stevenson
Permittee - Authorized Representative
Printed Name

Donald J. Stevenson for U.S.
Signature

516 Rowntree Rd
Mailing Address Charlotte NC 28217

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Bio-Nomic Services

County or City: Bedford County

Landowner: J&S Farms, LLC
James Ferguson

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
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 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
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 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

J&S Farms, LLC
James Ferguson (owner)
Landowner's Signature

12-20-15
Date

[Search](#)[Details](#)[Map](#)[Contact](#) | [GIS Page](#) | [Log On](#)[Printer-Friendly](#)[View In Map](#)**Tax Map #**

164 A 2

Link

164 A 2

Parcel Number(RPC)

16400100

Address

1139 JOPPA MILL ROAD

[Link to Real Estate Lookup/Sketch](#)**Parcel Information**[Valuation](#)[Improvements](#)[Ownership History](#)**General Information****Owner:**

J & S FARMS LLC

Legal Acreage:

61.8600

Additional Owner:**PCDesc:**

5 Agricultural/Undeveloped(20-99ac)

Owner Address:3915 MONETA RD
BEDFORD, VA 24523**Legal Description:**

NR BUNKER HILL

Document Number:

030004843

Land Use**Tax Year:**

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

R086-14
R086-15

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PO86-14
PO86-14



Title: J & S Farms LLC 164 A 2 16400100

Date: 3/15/2016

Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Landowner Coordination Form

This form is used by the Permittee to identify properties (tax parcels) that are authorized to receive biosolids and/or industrial residuals, and each of the legal landowners of those tax parcels. A *Land Application Agreement - Biosolids and Industrial Residuals* form with original signature must be attached for each legal landowner identified below prior to land application at the identified parcels.

Permittee: Bio-Nomic Services
County or City: Bedford County

Please Print

(Signatures not required on this page)

<u>Tax Parcel ID(s)</u>	<u>Landowner(s)</u>
146 8 6	James R. & Faye A. Ferguson
146 8 7	" " " "
145 A 50	" " " "
145 A 54	" " " "
145 A 51	" " " "
145 A 51A	" " " "
145 A 51B	" " " "
145 A 51C	" " " "
145 A 52	" " " "
145 A 53	" " " "
145 A 53A	" " " "
164 1 14	" " " "
146 A 57	Ferguson Farms, LLC
164 A 71 D	" "
164 A 71 E	" "
164 A 1	" "
145 A 40	" "
164 A 2	J & S Farms, LLC

Sammy Ferguson Farm

Bio-Nomic Services, Inc. is filing this application to apply approved (VA0025020) Class B biosolids to this designated farm land in Bedford County, Virginia.

The farm is located in the Bedford community on the east side of Mt. Olivet Road. All fields are located in a predominately agricultural areas. All streams, drainage features, rock outcrops, structures, dwellings, property lines, roadways and wells are designated and buffered as required. There are two public contact sites in the vicinity of the farm. See the attached buffer maps for more details. Biosolids are currently being used as crop nutrients on close by farms, and have been used on this farm by another biosolids contractor.

Mr. Ferguson operates his acreage as either hay production/pasture or small grain rotation. The small grain rotation is winter grain planting that is harvested as early season weed free mulch, and then followed with soybean or corn planting designated as livestock feedstock. The grass cover in the hayfields/ pastures is predominately fescue.

The current fescue hay fields are: RO 86-6, 86-12, 86-13 & 86-14.

The current fescue pastures are: RO 86-2, 86-3, 86-4, 86-5, 86-7, 86-8, 86-9, 86-10, 86-11 & 86-15.

The current small grain rotation field is: RO 86-1.

Nutrient Management Plans will be written by a certified plan writer to address the application of biosolids to the designated fields that will address the most recent planned use of the fields should any changes occur in agricultural practices.



-) **Brownlee Ave SE, Roanoke, VA 24014**
d) **3915 Moneta Rd, Bedford, VA 24523**

44 min, 26.9 mi

Light traffic (40 min without traffic)

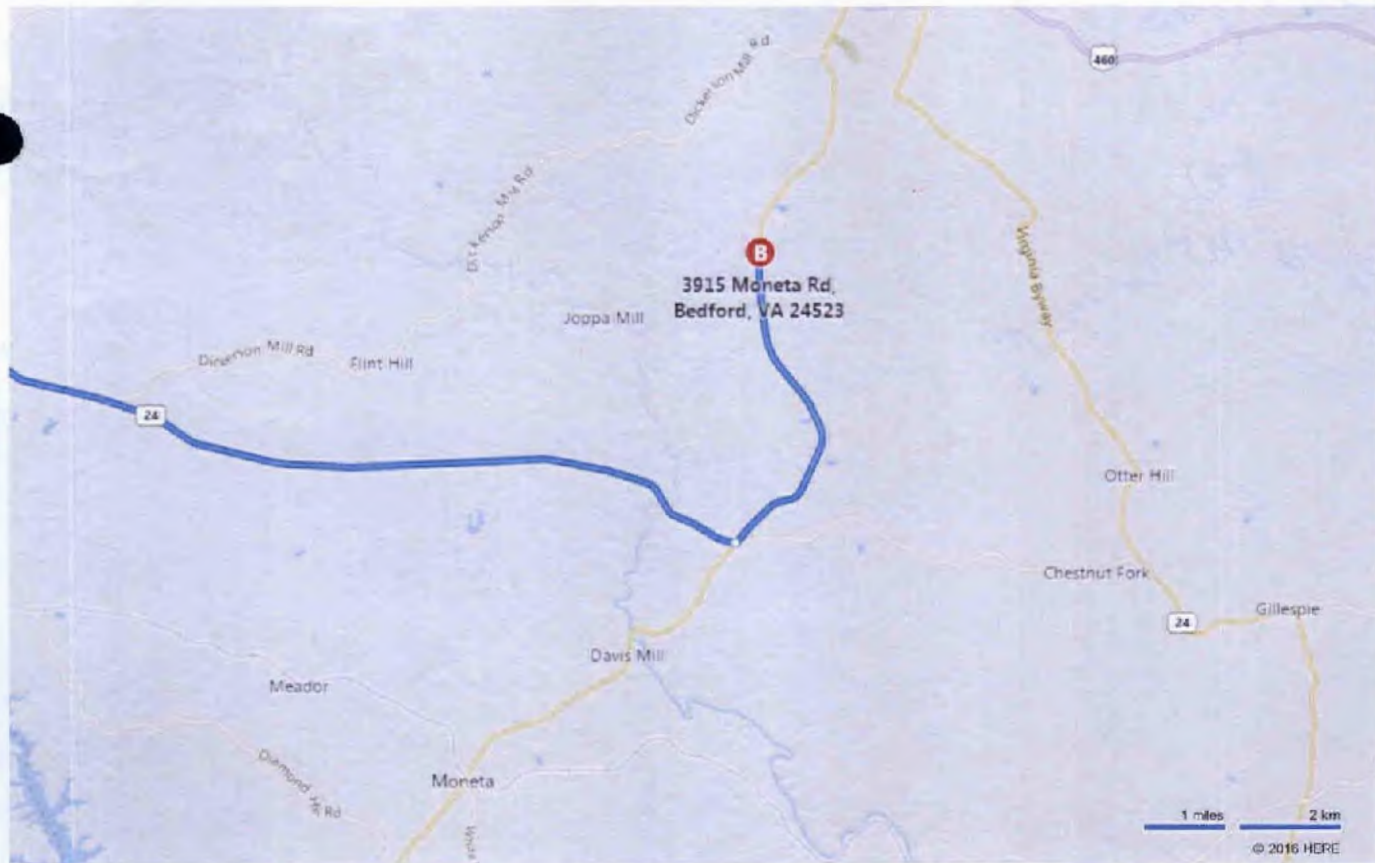
Via VA-24, VA-24 E

RO 86
Sammy Ferguson

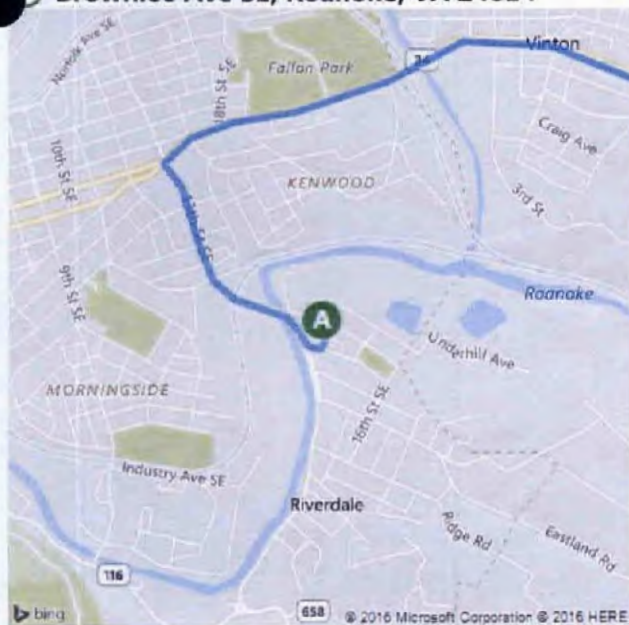
- Ⓐ **Brownlee Ave SE, Roanoke, VA 24014**

↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↗	2. Turn right onto Kindred St SE	479 ft
↗	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↗	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	19.1 mi, 26 min
↙	7. Bear left onto VA-122 / Moneta Rd	4.3 mi
	Arrive at VA-122	
	8. The last intersection is Joppa Mill Rd If you reach Big Easy Pl, you've gone too far	

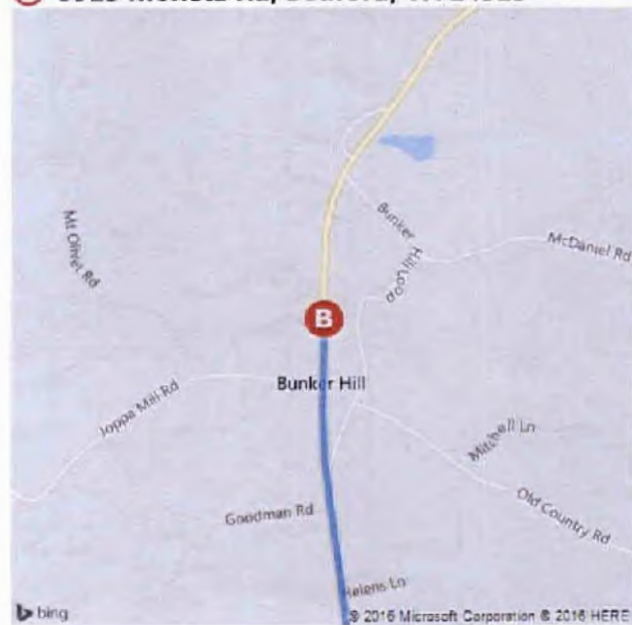
- Ⓑ **3915 Moneta Rd, Bedford, VA 24523**



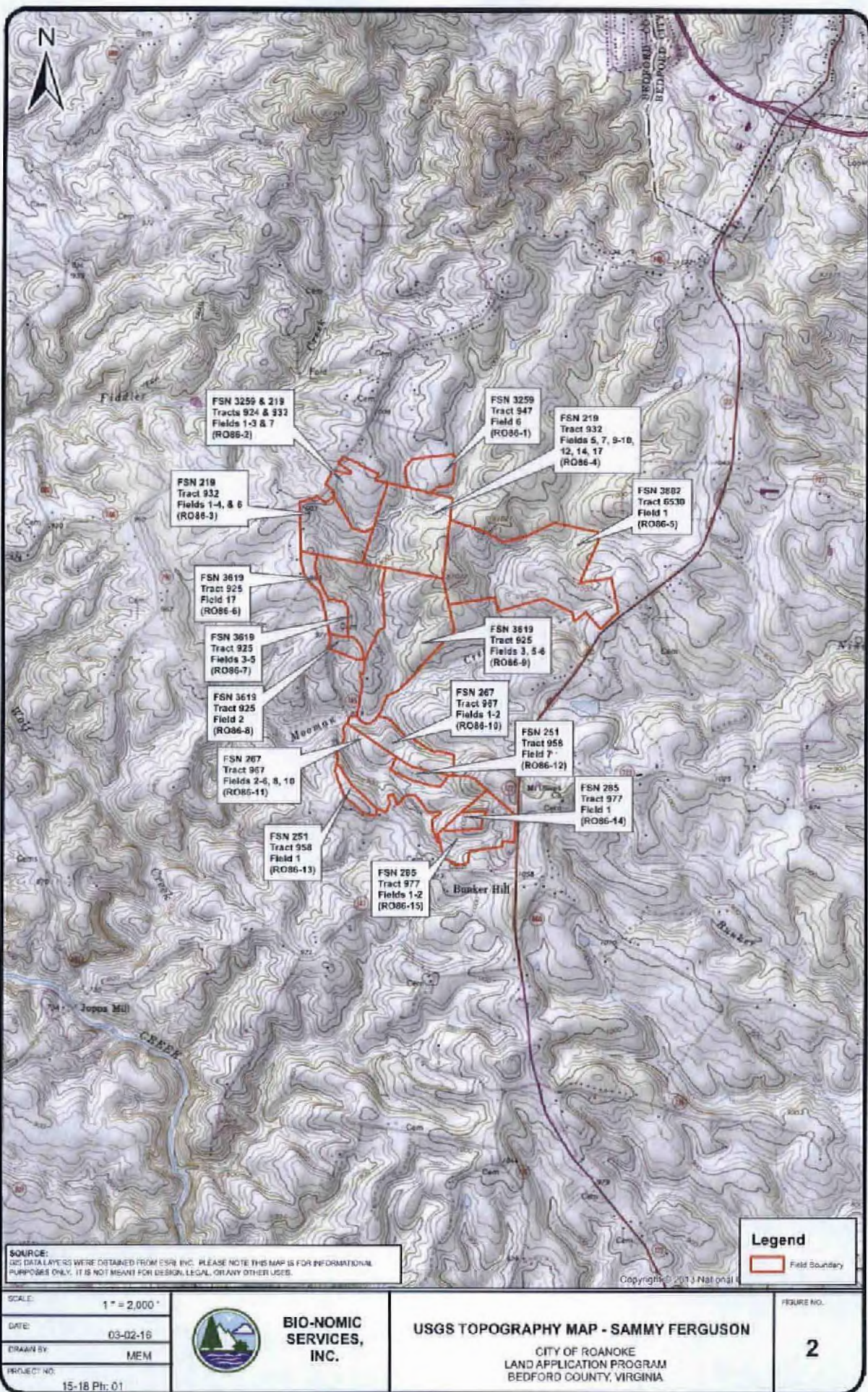
A Brownlee Ave SE, Roanoke, VA 24014

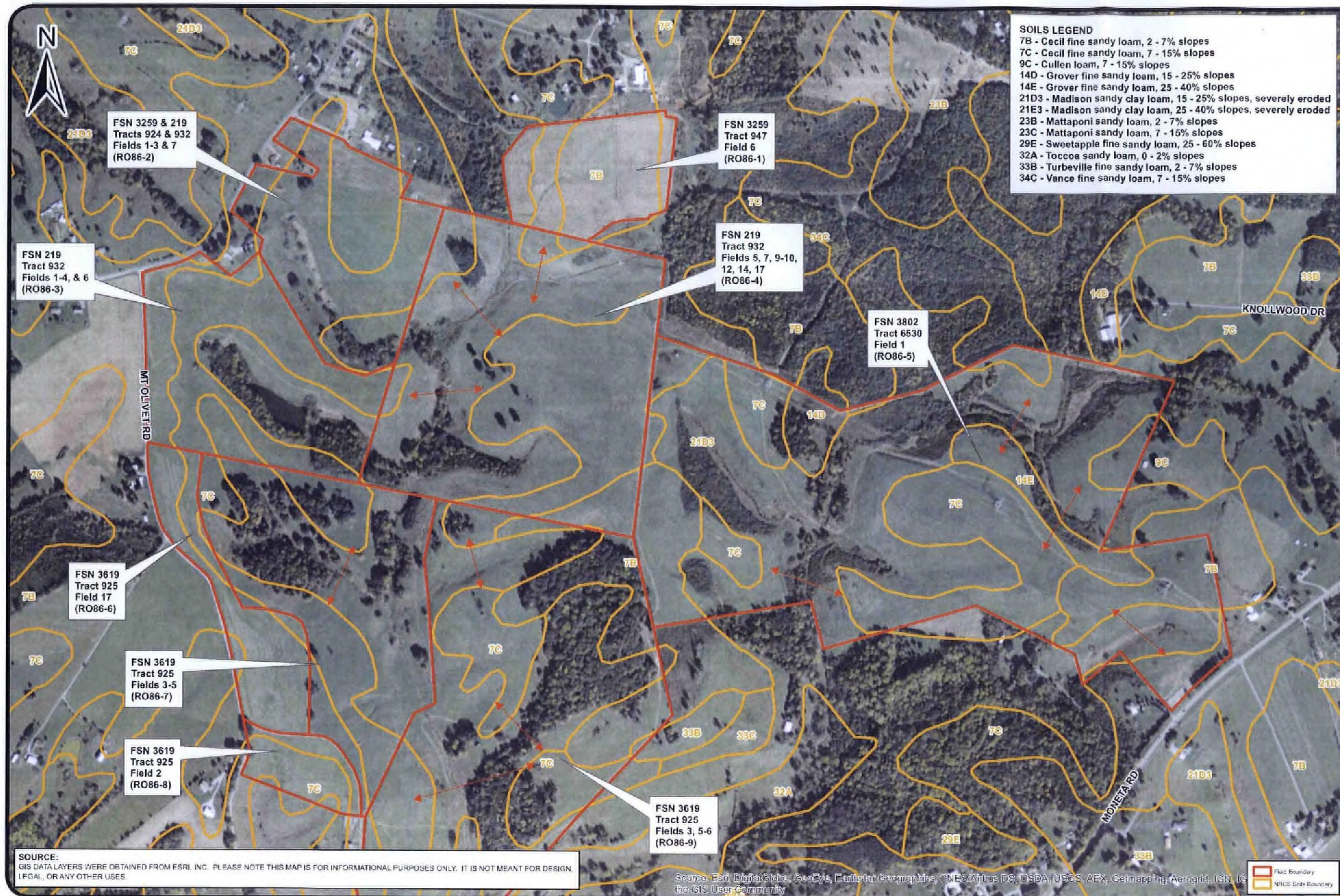



B 3915 Moneta Rd, Bedford, VA 24523



These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2016 HERE™.



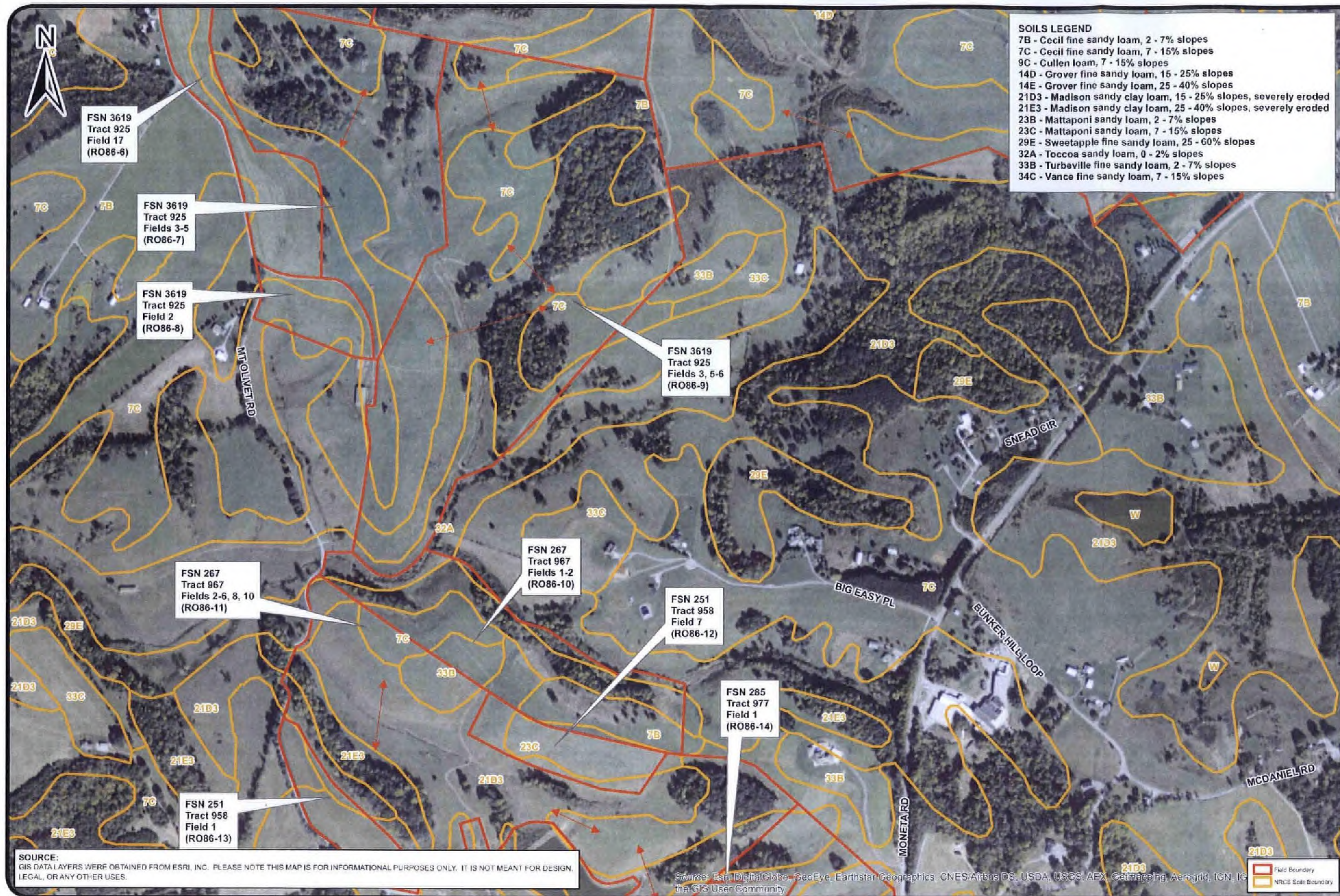


DATE: 03.02.2016	SCALE: 1" = 600'	 BIO-NOMIC SERVICES, INC.
DRAWN BY: MEM	PROJECT NO. 15-18 Ph:01	
CHECKED BY: MEM	ENGINEERING LICENSE NO.	

NRCS MAP - SAMMY FERGUSON
 CITY OF ROANOKE
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

FIGURE NO. **3**

Chargis20081588-09-065 Bio-nomic Sammy Ferguson Maps\NRCS1-8.mxd



**BIO-NOMIC
SERVICES,
INC.**

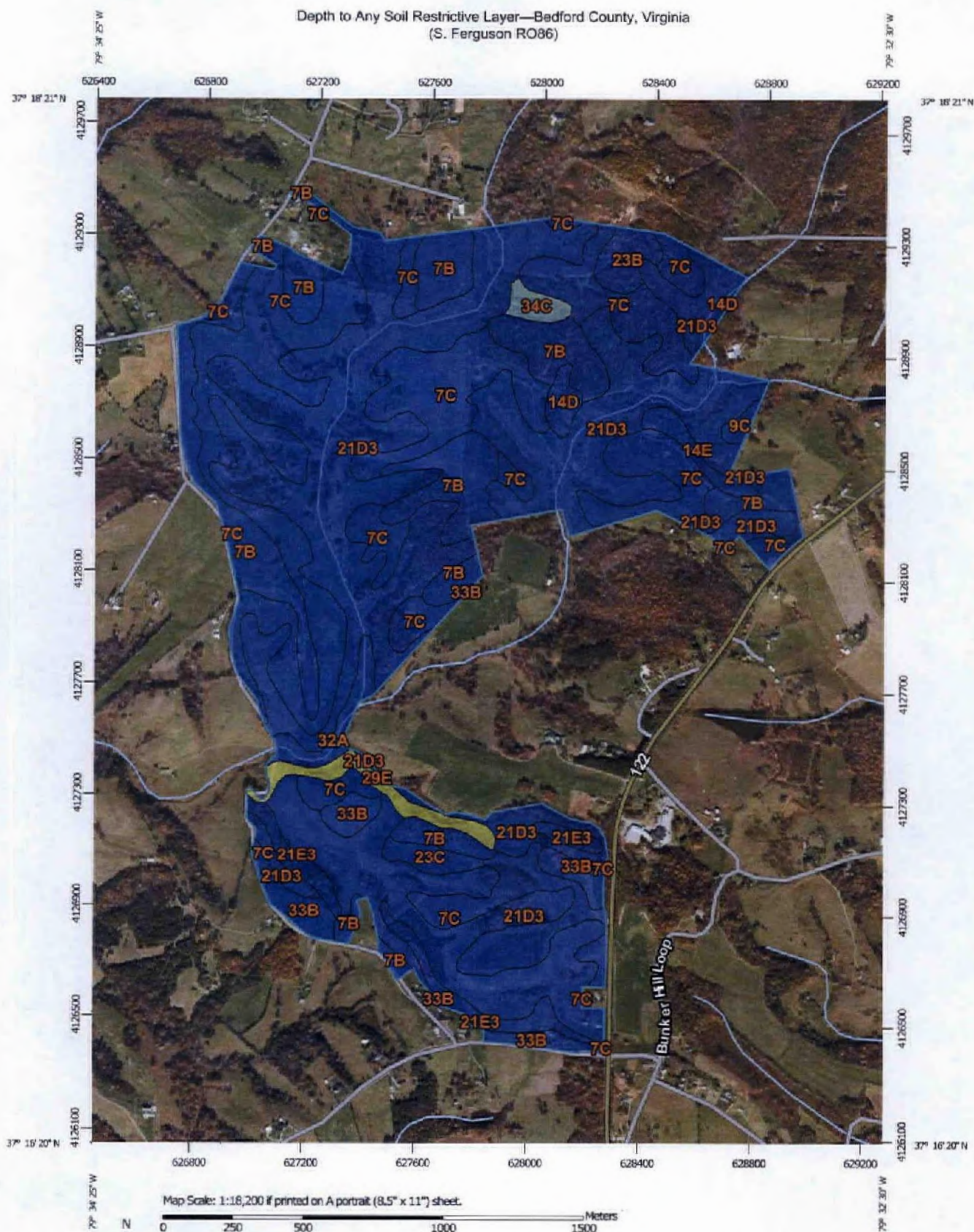
NRCS MAP - SAMMY FERGUSON
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.

4

C:\projects\2009\1588-09-059 Bio-nomics\Sammy Ferguson\Map\Map\CS8-10 12.mxd


Depth to Any Soil Restrictive Layer—Bedford County, Virginia
(S. Ferguson RO86)



Depth to Any Soil Restrictive Layer—Bedford County, Virginia
(S. Ferguson RO86)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Points

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

 Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bedford County, Virginia
Survey Area Data: Version 11, Dec 11, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 8, 2010—Mar 17, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Bedford County, Virginia (VA019)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
7B	Cecil fine sandy loam, 2 to 7 percent slopes	>200	116.8	13.8%
7C	Cecil fine sandy loam, 7 to 15 percent slopes	>200	250.7	29.6%
9C	Cullen loam, 7 to 15 percent slopes	>200	2.5	0.3%
14D	Grover fine sandy loam, 15 to 25 percent slopes	>200	5.3	0.6%
14E	Grover fine sandy loam, 25 to 40 percent slopes	>200	7.1	0.8%
21D3	Madison sandy clay loam, 15 to 25 percent slopes, severely eroded	>200	376.4	44.4%
21E3	Madison sandy clay loam, 25 to 40 percent slopes, severely eroded	>200	22.0	2.6%
23B	Mattaponi sandy loam, 2 to 7 percent slopes	>200	9.5	1.1%
23C	Mattaponi sandy loam, 7 to 15 percent slopes	>200	6.9	0.8%
29E	Sweetapple fine sandy loam, 25 to 60 percent slopes	99	11.9	1.4%
32A	Toccoa sandy loam, 0 to 2 percent slopes	>200	9.7	1.1%
33B	Turbeville fine sandy loam, 2 to 7 percent slopes	>200	23.6	2.8%
34C	Vance fine sandy loam, 7 to 15 percent slopes	102	5.4	0.6%
Totals for Area of Interest			847.8	100.0%

Description

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "> 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

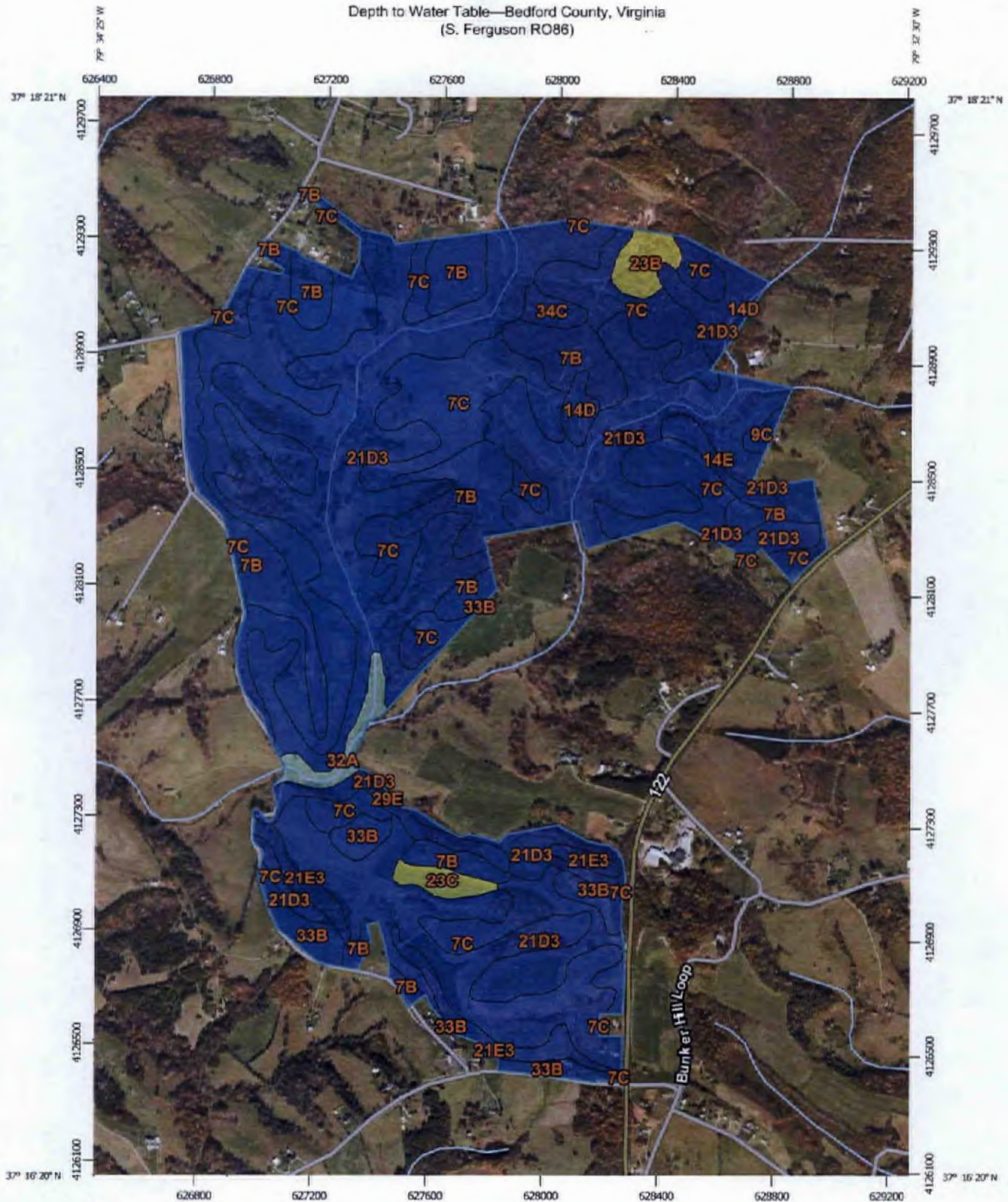
Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Depth to Water Table—Bedford County, Virginia
(S. Ferguson RO86)



Map Scale: 1:18,200 if printed on A portrait (8.5" x 11") sheet.

0 250 500 1000 1500 Meters
0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

2/25/2016
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)	 Not rated or not available
 Area of Interest (AOI)	
Soils	Water Features
Soil Rating Polygons	 Streams and Canals
 0 - 25	Transportation
 25 - 50	 Rails
 50 - 100	 Interstate Highways
 100 - 150	 US Routes
 150 - 200	 Major Roads
 > 200	 Local Roads
 Not rated or not available	Background
	 Aerial Photography
Soil Rating Lines	
 0 - 25	
 25 - 50	
 50 - 100	
 100 - 150	
 150 - 200	
 > 200	
 Not rated or not available	
Soil Rating Points	
 0 - 25	
 25 - 50	
 50 - 100	
 100 - 150	
 150 - 200	
 > 200	

MAP INFORMATION

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14E	Grover fine sandy loam, 25 to 40 percent slopes	>200	7.1	0.8%
21D3	Madison sandy clay loam, 15 to 25 percent slopes, severely eroded	>200	376.4	44.4%
21E3	Madison sandy clay loam, 25 to 40 percent slopes, severely eroded	>200	22.0	2.6%
23B	Mattaponi sandy loam, 2 to 7 percent slopes	91	9.5	1.1%
23C	Mattaponi sandy loam, 7 to 15 percent slopes	91	6.9	0.8%
29E	Sweetapple fine sandy loam, 25 to 60 percent slopes	>200	11.9	1.4%
32A	Toccoa sandy loam, 0 to 2 percent slopes	114	9.7	1.1%
33B	Turbeville fine sandy loam, 2 to 7 percent slopes	>200	23.6	2.8%
34C	Vance fine sandy loam, 7 to 15 percent slopes	>200	5.4	0.6%
Totals for Area of Interest			847.8	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

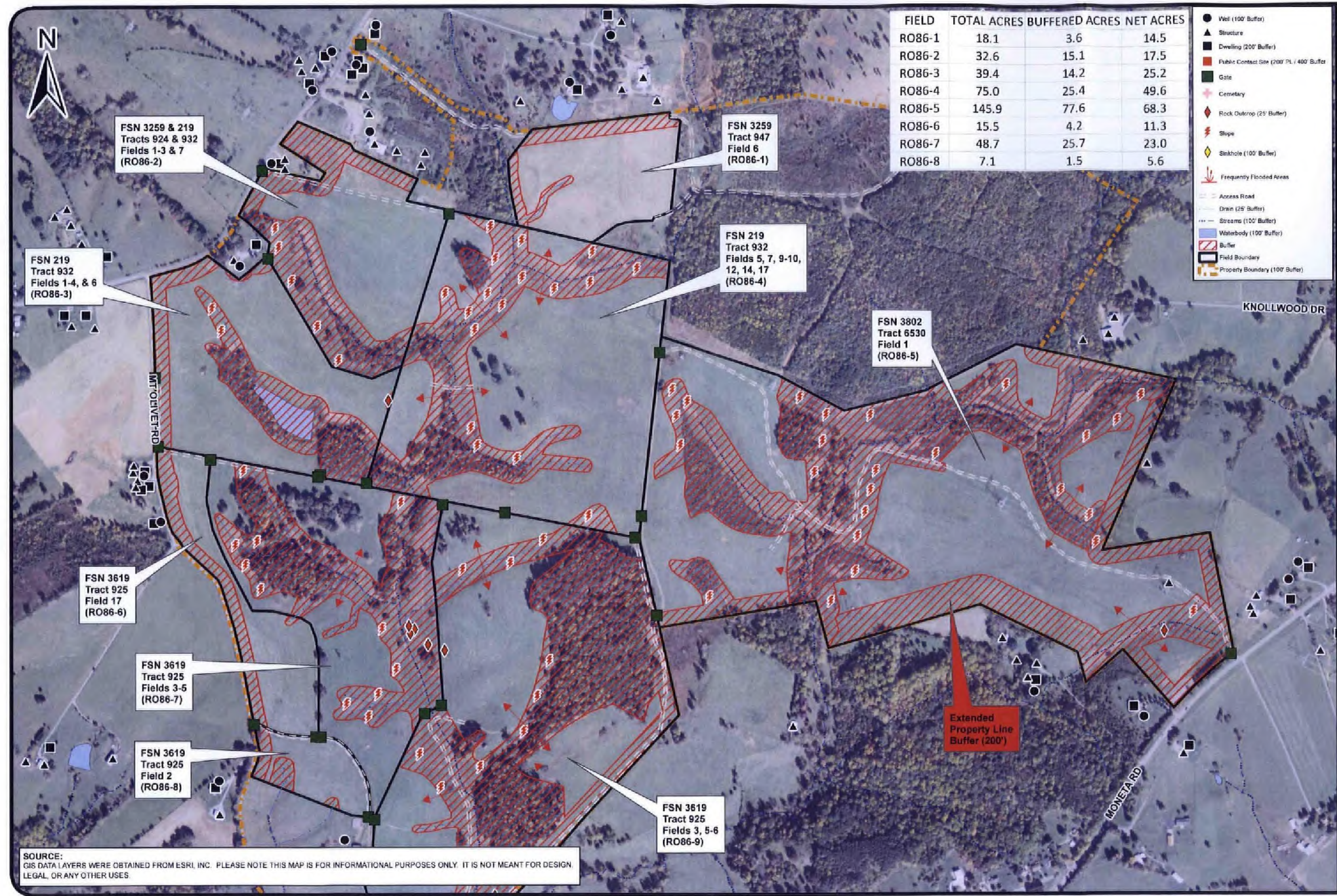
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December



FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO86-1	18.1	3.6	14.5
RO86-2	32.6	15.1	17.5
RO86-3	39.4	14.2	25.2
RO86-4	75.0	25.4	49.6
RO86-5	145.9	77.6	68.3
RO86-6	15.5	4.2	11.3
RO86-7	48.7	25.7	23.0
RO86-8	7.1	1.5	5.6

- Well (100' Buffer)
- Structure
- Dwelling (200' Buffer)
- Public Contact Site (200' PL / 400' Buffer)
- Gate
- Cemetery
- Rock Outcrop (25' Buffer)
- Slope
- Sinkhole (100' Buffer)
- Frequently Flooded Areas
- Access Road
- Drain (25' Buffer)
- Streams (100' Buffer)
- Waterbody (100' Buffer)
- Buffer
- Field Boundary
- Property Boundary (100' Buffer)

SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES

DATE: 08.31.2016
DRAWN BY: MEM
CHECKED BY: MEM

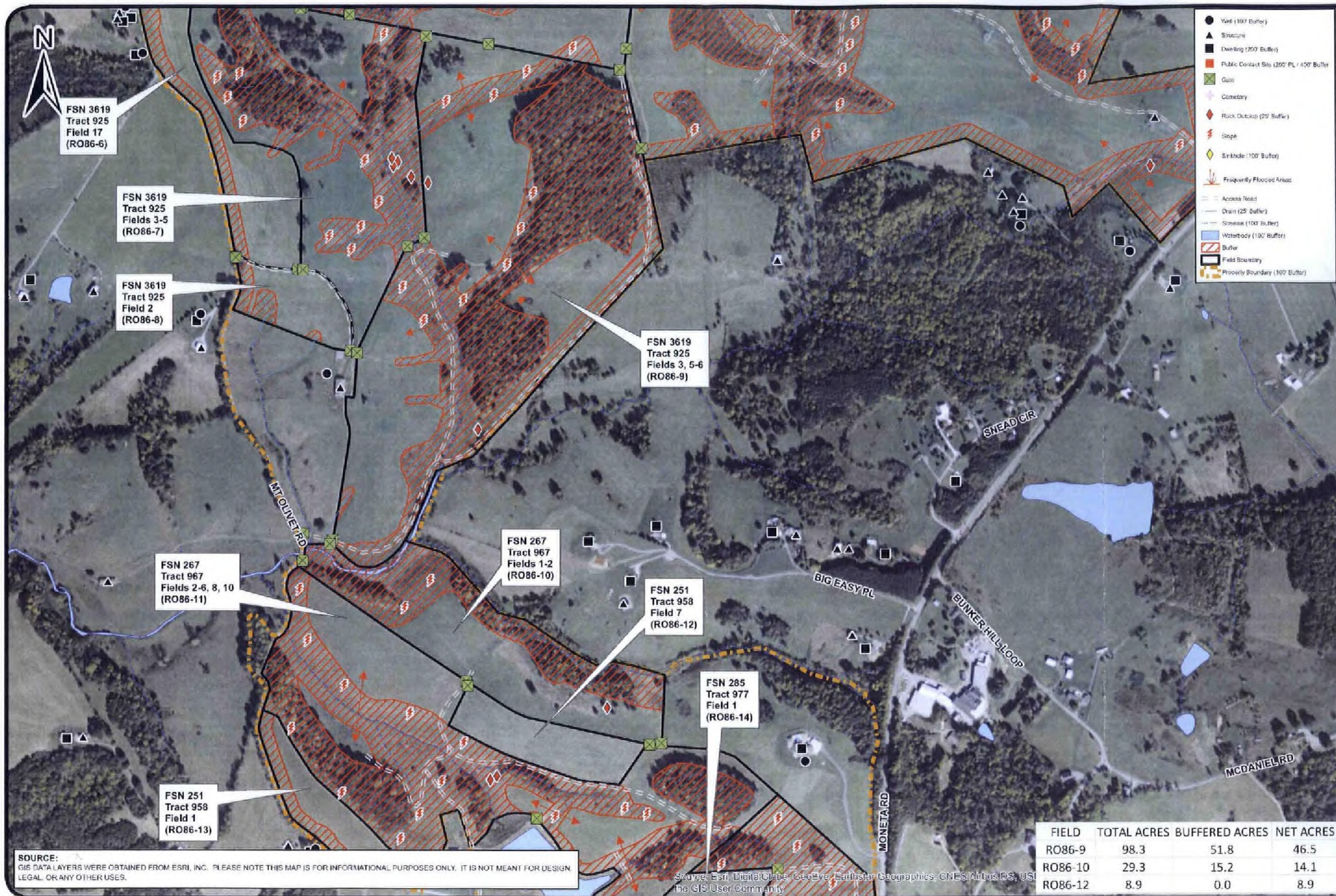
SCALE: 1" = 600'
PROJECT NO: 15-18 Ph:01
ENGINEERING LICENSE NO:

BIO-NOMIC SERVICES, INC.

BUFFER MAP - SAMMY FERGUSON
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO:
6

C:\virginia\2003\1588-26-059 Bio-nomics\Sammy Ferguson\Maps\Buffer1-8.mxd



DATE: 03.02.2016
DRAWN BY: MEM
CHECKED BY: MEM

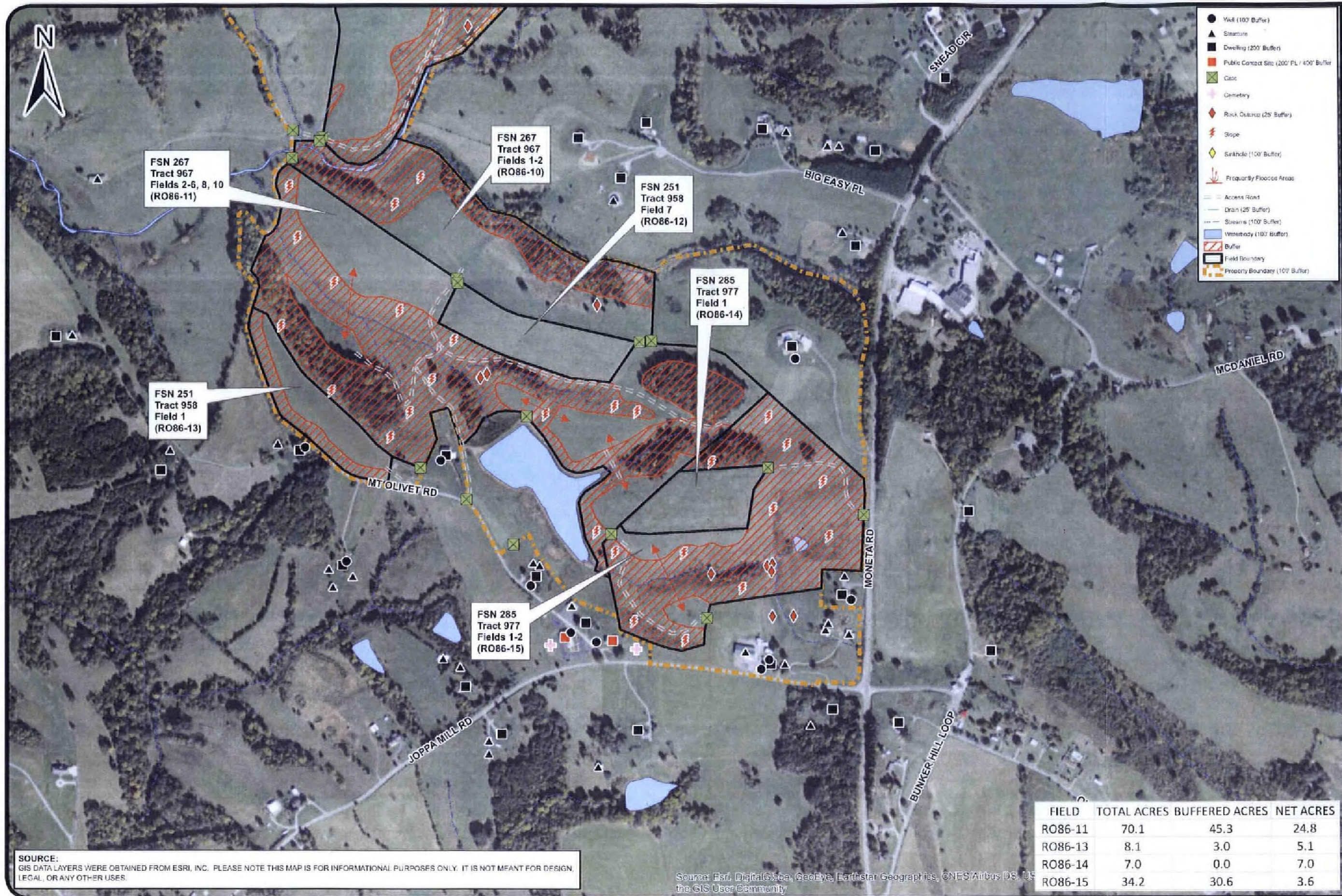
SCALE: 1" = 600'
PROJECT NO: 15-18 Ph.01
ENGINEERING LICENSE NO:

BIO-NOMIC SERVICES, INC.

BUFFER MAP - SAMMY FERGUSON
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO:
7

Copyright 2009 1598-09-059 Bio-nomics\Sammy Ferguson\Maps\Buffer-10-12.mxd



FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO86-11	70.1	45.3	24.8
RO86-13	8.1	3.0	5.1
RO86-14	7.0	0.0	7.0
RO86-15	34.2	30.6	3.6

DATE: 03.02.2016
DRAWN BY: MEM
CHECKED BY: MEM

SCALE: 1" = 600'
PROJECT NO. 15-18 Ph:01
ENGINEERING LICENSE NO.

BIO-NOMIC SERVICES, INC.

BUFFER MAP - SAMMY FERGUSON
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO. 8

C:\arcgis\2009\1586-09-059 Bio-nomic\Sammy Ferguson\Map\Buffer11_13.mxd



1 inch = 635 feet

Farm: 3619
Tract: 925

Wetland Determination Map
 Redundant Use
 Limited Plant Species
 Grouped Wetland Determination

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.



Bedford County, VA

Jan. 13, 2016



1 inch = 197 feet

Farm: 5098
Tract: 1080

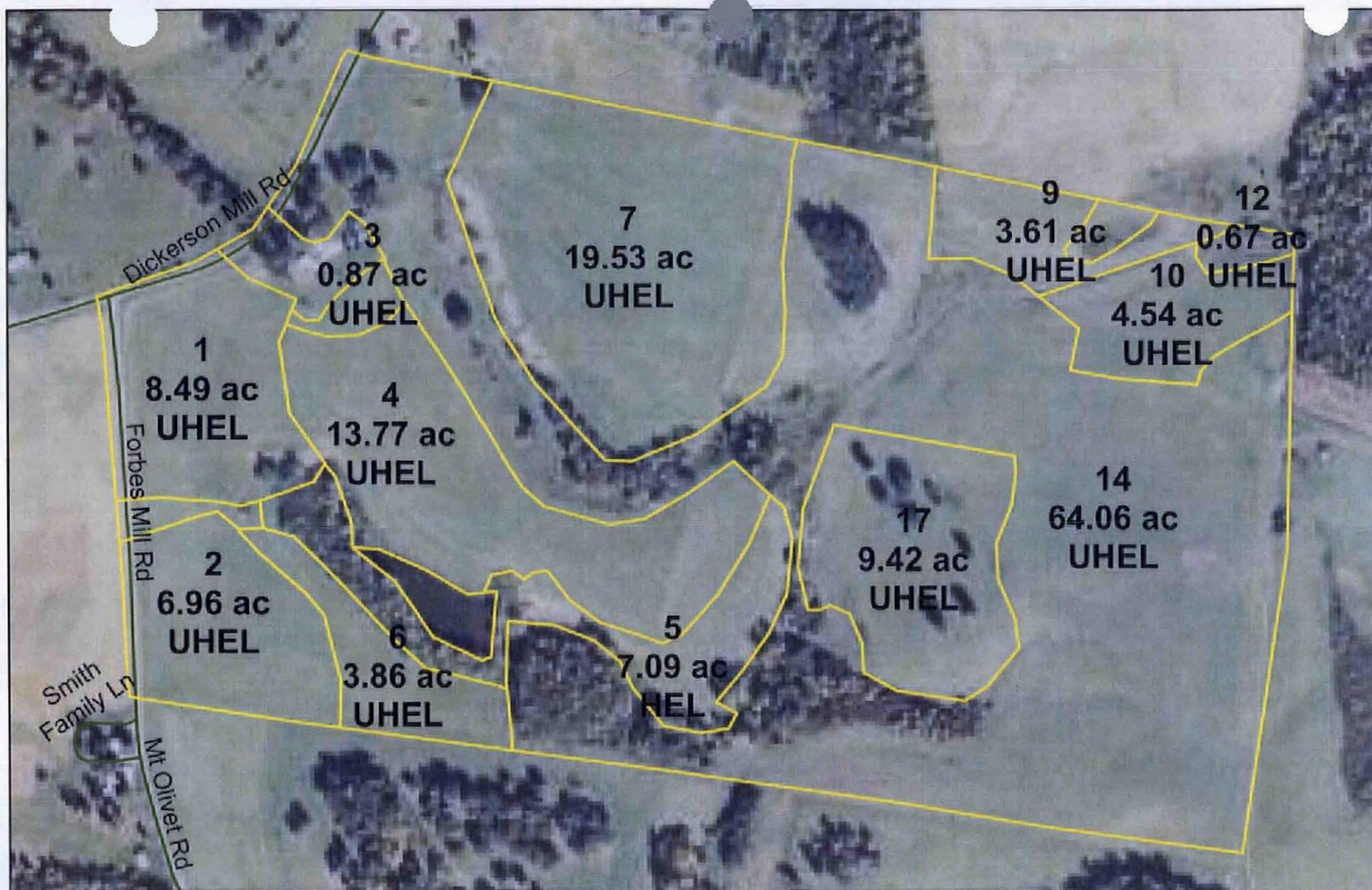
Wetland Determination Map
 Reduced Use
 Limited Use
 No Wetlands

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.



Bedford County, VA

Jan. 13, 2016

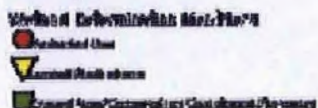


1 inch = 385 feet

Farm: 219
Tract: 932

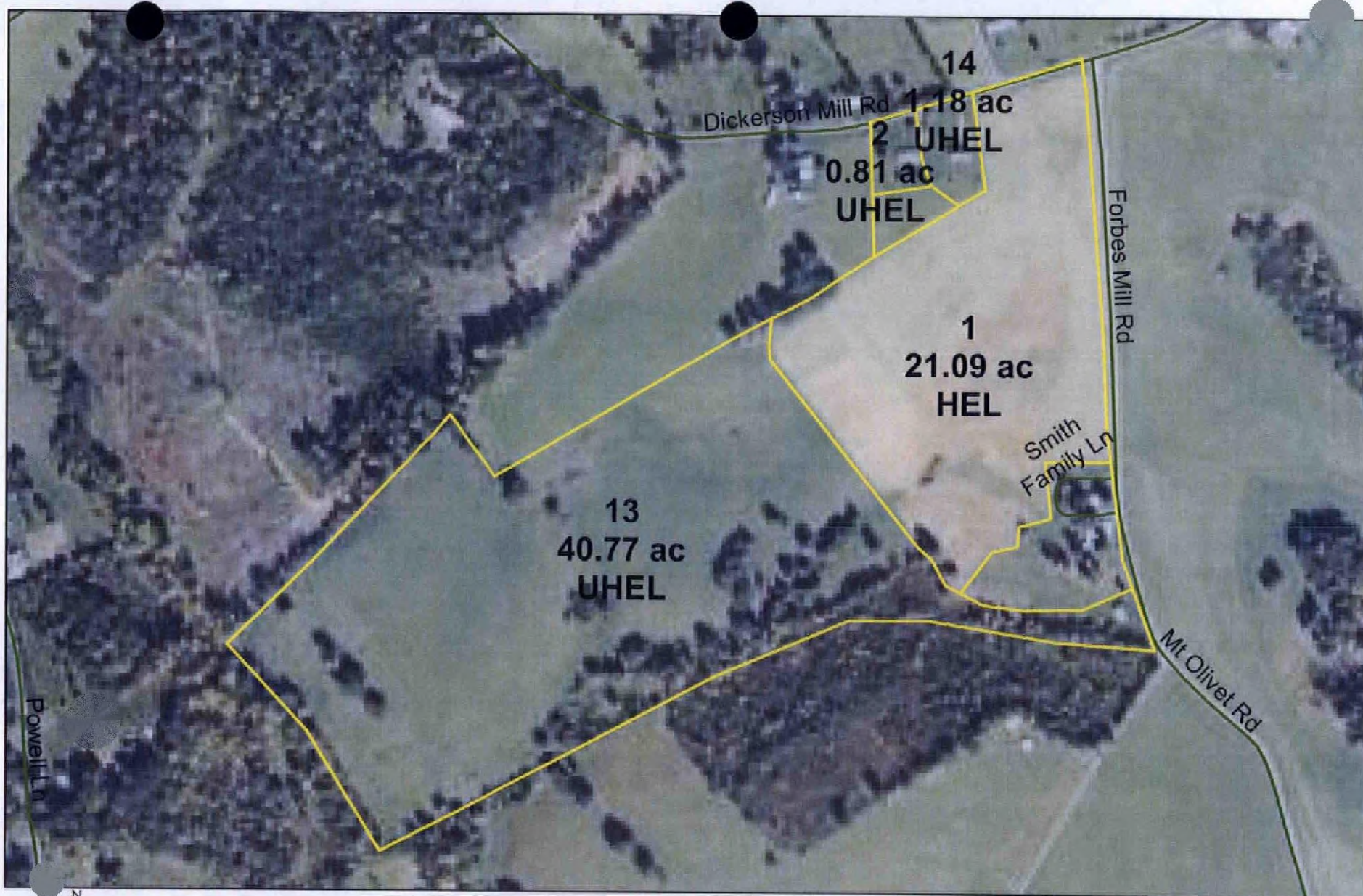


Bedford County, VA



Disclaimer: Wetland Identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Jan. 13, 2016



Farm: 249
Tract: 957

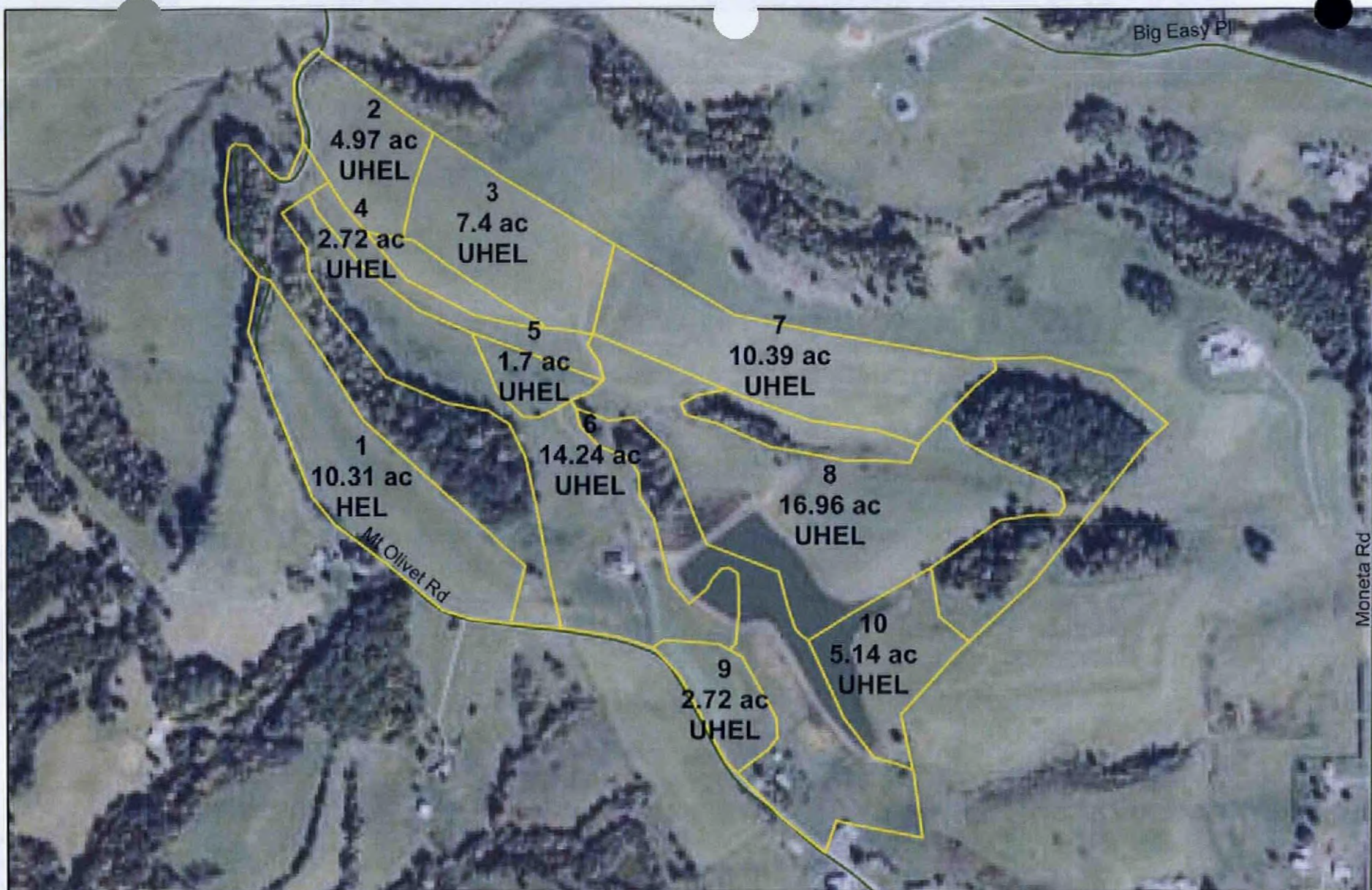


Bedford County, VA

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original dermination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Jan. 13, 2016

Wetland Determination Map Legend
 Unshaded Area
 Wetland
 Wetland
 Wetland



1 inch = 488 feet

Farm: 251
Tract: 958

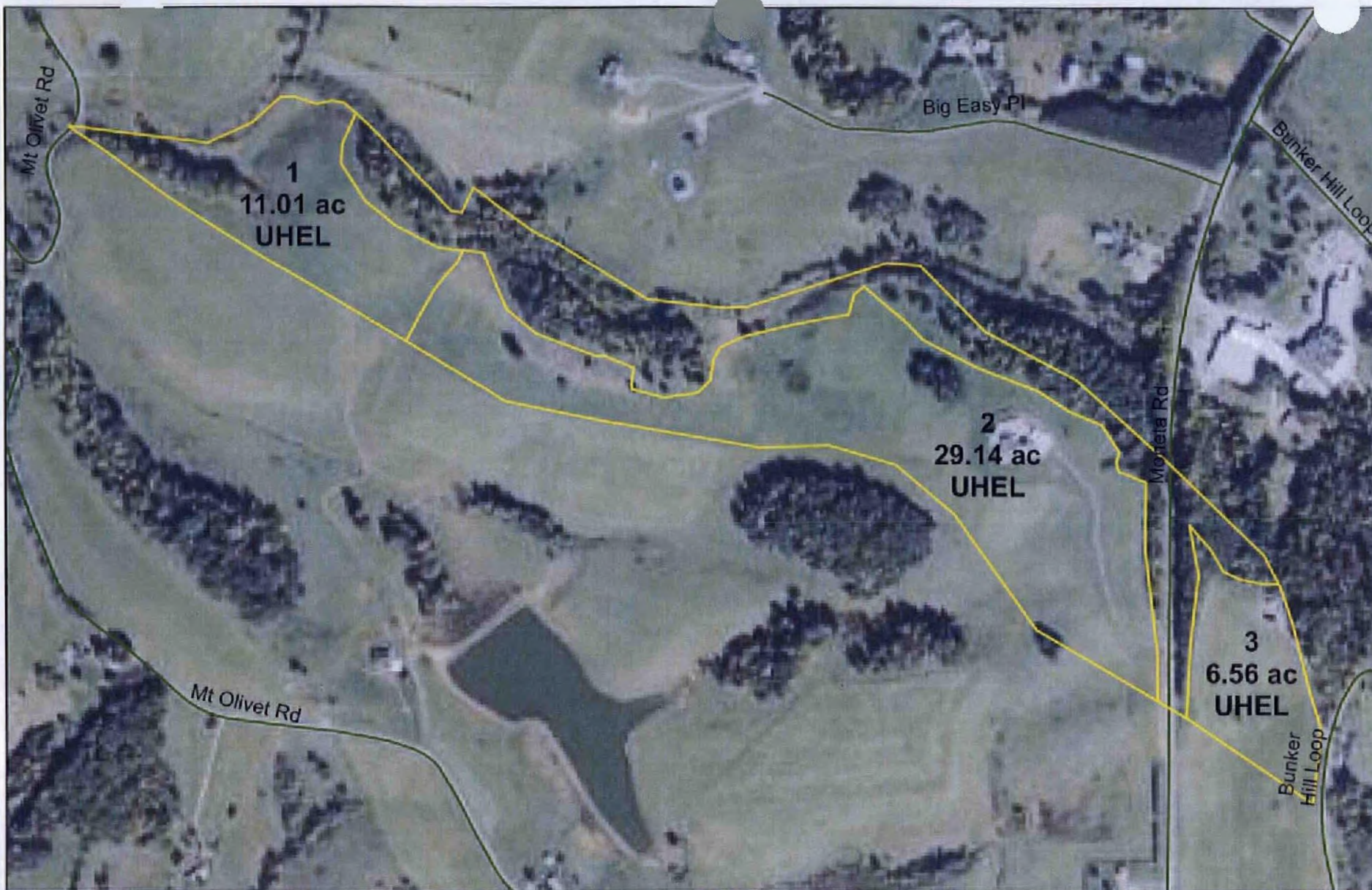
Wetland Determination Map
 Reduced Size
 Wetland Determination
 Original Size Determination Compliance

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.



Bedford County, VA

Jan. 13, 2016



1 inch = 471 feet

Farm: 267
Tract: 967

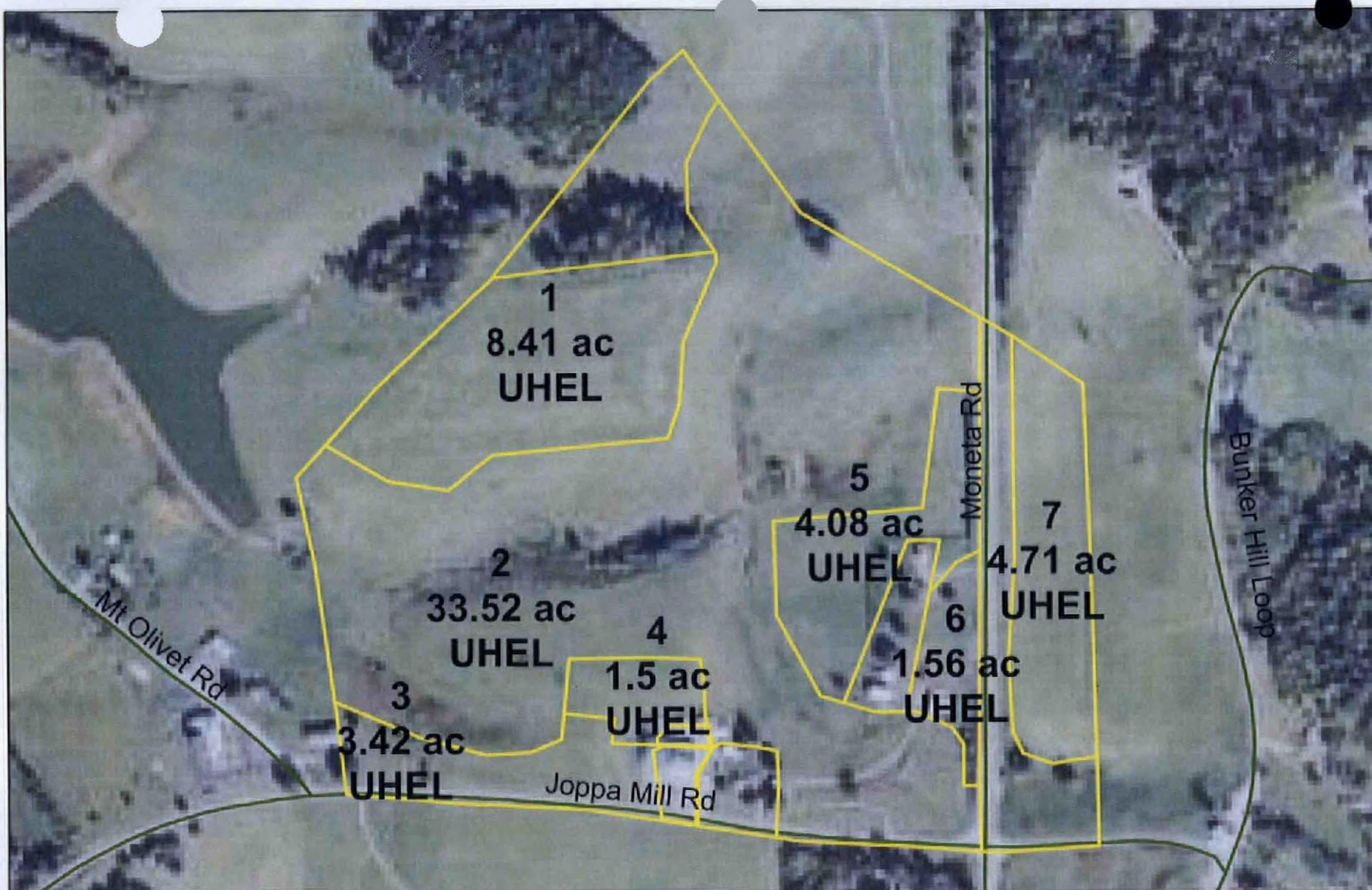


Bedford County, VA

Wetland Identification Map Legend
 Submerged Wetland
 Emergent Wetland
 Forested Wetland

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Jan. 13, 2016



Farm: 285
Tract: 977



Bedford County, VA

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Jan 5, 2015



Farm: 3259
Tract: 947

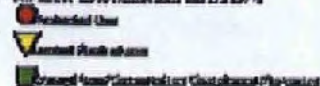


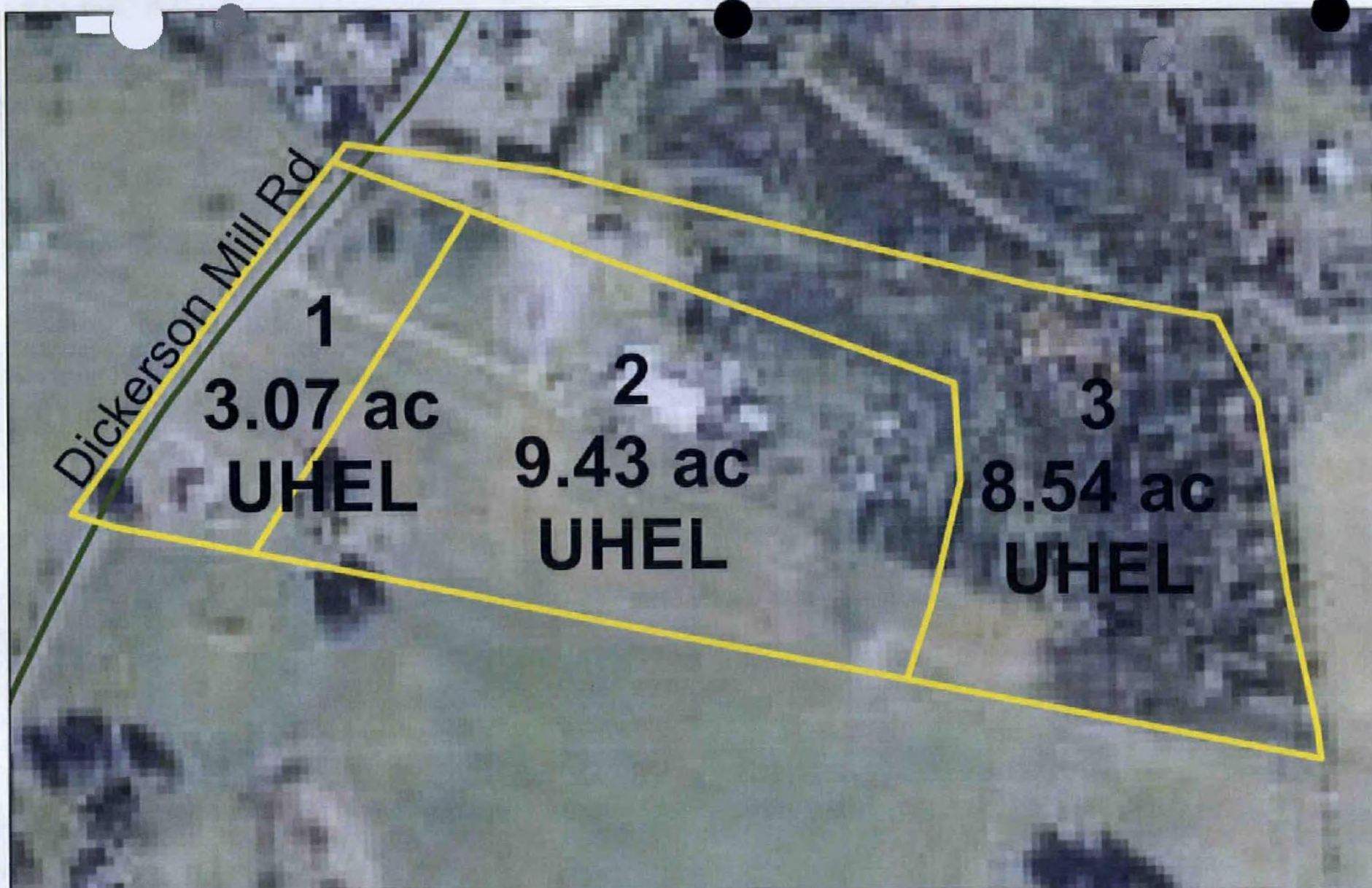
Bedford County, VA

Jan. 13, 2016

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Wetland Determination Map 3259





1 inch = 182 feet

Farm: 3259
Tract: 924

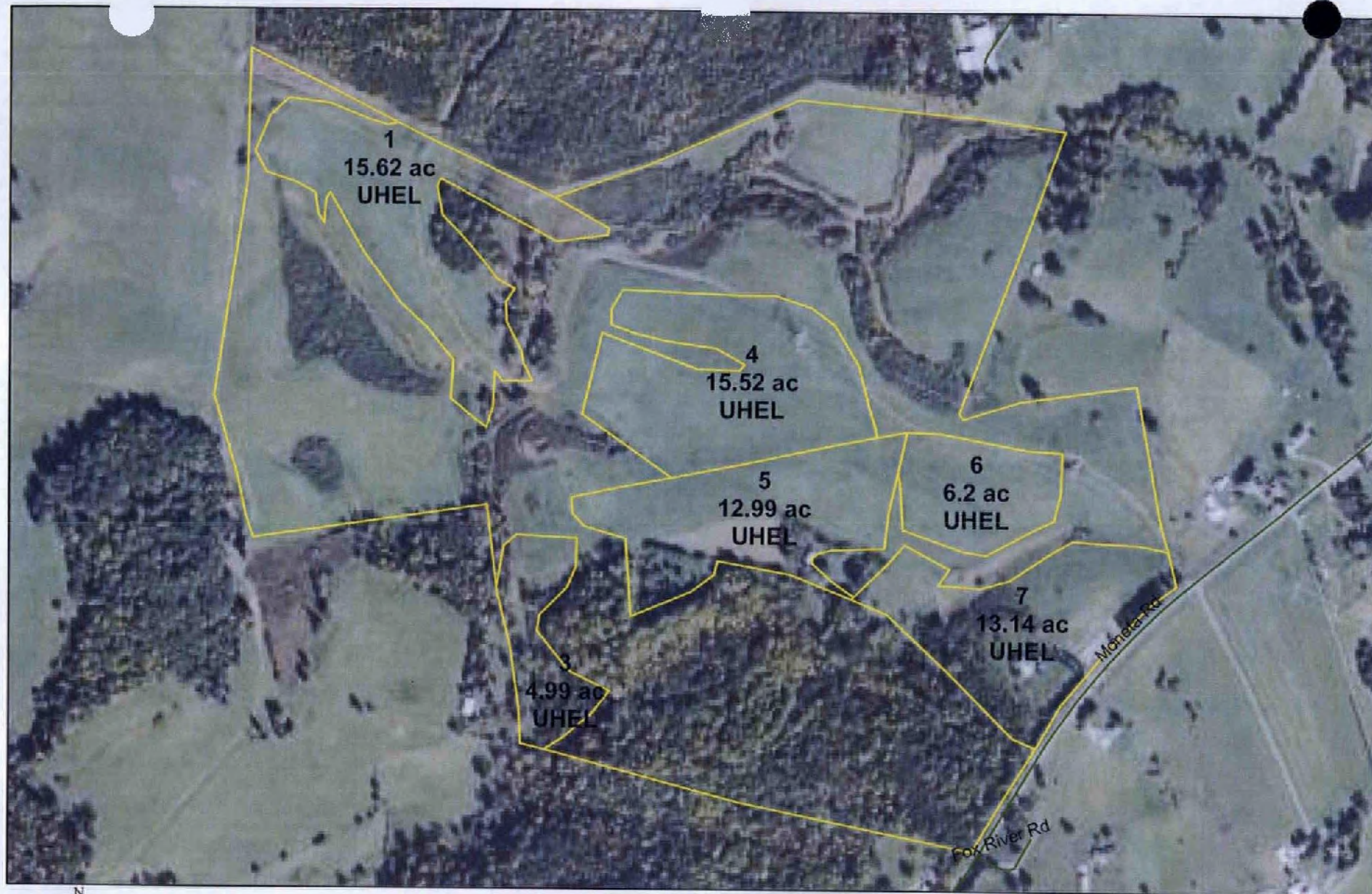


Bedford County, VA

Wetland Identification Map
● Wetland Area
▲ Wetland Area
■ Wetland Area

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Jan. 13, 2016



1 inch = 535 feet

Farm: 3802
Tract: 6530

Wetland Determination Map
 Wetland Class
 Wetland Class
 Wetland Class

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Bedford County, VA

Jan. 13, 2016

Report Number: 16-098-0505

Account Number: 45671



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Main 804-743-9401 • Fax 804-271-6446

www.waypointanalytical.com

Send To: BIO-NOMIC SERVICES INC

Joel Coert

516 ROUNDTREE RD

CHARLOTTE NC 28217

Submitted By: DON GREENE

Farm ID: RO 86

Grower: FERGERSON

SOIL ANALYSIS REPORT

Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

Date Received: 04/07/2016

Date Of Analysis: 04/08/2016

Date Of Report: 04/08/2016

Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
86-1	06733	3.9 M		112	4 VL NC = 3			124 M NC = 63	264 H	1769 H		7.5		0.0	11.4
86-2	06734	2.6 M		95	4 VL NC = 3			121 VH NC = 62	56 L	553 M		5.4	6.79	1.4	4.9
86-3	06735	3.1 M		103	14 L NC = 12			31 VL NC = 16	108 M	702 M		5.5	6.77	1.6	6.1
86-4	06737	3.5 M		107	8 VL NC = 7			86 L NC = 44	228 H	1344 H		7.2		0.0	8.8
86-5	06738	1.3 L		72	4 VL NC = 3			64 L NC = 33	35 L	411 M		5.8	6.87	0.6	3.1

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate	Cl ppm Rate	Al ppm
86-1	2.8	19.3	77.6		0.0										
86-2	6.3	9.5	56.4		28.6										
86-3	1.3	14.8	57.5		26.2										
86-4	2.5	21.6	76.4		0.0										
86-5	5.3	9.4	66.3		19.4										

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical-Virginia, Inc.

by: *Paucic McGeary*

Paucic McGeary

Report Number: 16-098-0505

Account Number: 45671



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Joel Coert

516 ROUNDTREE RD

CHARLOTTE NC 28217

Submitted By: DON GREENE

Farm ID: RO 86

Grower: FERGERSON

SOIL ANALYSIS REPORT

Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

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Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
86-6	06739	5.3 H	MIN	141	37 M NC = 31			72 L NC = 37	143 M	1863 VH		6.9		0.1	10.8
86-7	06740	3.3 M	MIN	106	25 L NC = 21			55 VL NC = 28	49 VL	1141 H		6.2		0.9	7.2
86-8	06741	4.0 M	MIN	114	66 H NC = 55			321 VH NC = 164	95 L	1648 H		6.4		1.0	10.9
86-9	06742	3.2 M	MIN	103	84 H NC = 70			103 M NC = 53	91 L	1231 H		6.6		0.5	7.7
86-10	06743	5.8 H	MIN	149	39 M NC = 32			55 VL NC = 28	209 M	1920 H		6.7		0.5	12.0

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate	Cl ppm Rate	Al ppm
86-6	1.7	11.0	86.3		0.9										
86-7	2.0	5.7	79.2		12.5										
86-8	7.6	7.3	75.6		9.2										
86-9	3.4	9.8	79.9		6.5										
86-10	1.2	14.5	80.0		4.2										

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: *Paucic McGeary*

Paucic McGeary

Report Number: 16-098-0507

Account Number: 45671



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Farm ID: RO 86

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Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

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Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm	Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
86-11	06763	5.5 H	MIN	144	89 H NC = 74			114 M NC = 58	116 L	1969 VH		6.9		0.2	11.3
86-12	06764	4.6 M	MIN	128	90 H NC = 75			48 VL NC = 25	99 L	1667 VH		6.8		0.3	9.6
86-13	06765	3.7 M	MIN	112	39 M NC = 32			25 VL NC = 13	121 M	1393 H		6.7		0.4	8.4
86-14	06766	4.8 M	MIN	133	67 H NC = 56			165 VH NC = 84	127 M	1505 H		6.7		0.4	9.4
86-15	06767	4.9 M	MIN	135	60 H NC = 50			162 VH NC = 83	120 M	1604 VH		7.0		0.0	9.4
Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate	Cl ppm Rate	Al ppm
86-11	2.6	8.6	87.1		1.8										
86-12	1.3	8.6	86.8		3.1										
86-13	0.8	12.0	82.9		4.8										
86-14	4.5	11.3	80.1		4.3										
86-15	4.4	10.6	85.3		0.0										

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

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